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## ABSTRACT

In 1982-1983, females constituted 40.5 percent of those students enrolled in postsecondary area vocational-technical institutions (AVTIs) in Minnesota. If vocational programs are defined as being either segregated or integrated on the basis of whether fewer or more than 80 percent of the students enrolled in them belong to one sex, then, in 1982-1983, 369 of Minnesota's 768 postsecondary AVTI programs were male-dominated, segregated courses and 201 were female-dominated, segregated courses. In fact, 30 percent were either all-male or all-female programs. Approximately two-thirds of female students were enrolled in health or business programs, whereas more than three-fourths of male students were enrolled in technical or trade and industrial programs. Segregation also existed within program areas. Although females accounted for 41 percent of AVTI enrollments, they received only 35 percent of program expenditures statewide. One-year followup data on graduates of postsecondary AVTI programs revealed that the average full-time salary for women was \$9,792 compared with \$11,556 for males. These figures represented a \$36 increase for females and a decrease of \$492 for men from the previous year. (This report contains 15 tables.) (MN)

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# VOCATIONAL EDUCATION SEX EQUITY REPORT: POST-SECONDARY 1984

Prepared for the Minnesota Department of Education  
under Contract No. 41-SB-130/94-482

COMMISSION ON THE ECONOMIC STATUS OF WOMEN  
B-59 State Capitol  
St. Paul, Minnesota 55155

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# INTRODUCTION

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The quality of American education has become a major national issue in the past several years. A number of reports have been issued - most notable A Nation at Risk. As a result there has been a focus on the needs of the educational system. Educational equity/ for women is an essential component of the quest for educational excellence.

The rapid surge of women into the labor force over recent decades reinforces the need of all women for an equitable education. Today more than ever women are firmly established members of our nation's work force. The 1970s witnessed an extraordinary increase in women's labor force participation. Women are now 43 percent of the labor force and nearly two-thirds of women age 16-64 work for pay.

While women have obtained jobs in just about every field of employment, the majority of women continue to work in the traditional professional, clerical and service jobs. Their earnings continue to average only 60 percent of the earnings of men. The increasing numbers of women who are the sole support of themselves and/or their families face particularly serious problems. Nationwide, women and children make up four-fifths of the poverty population.

When educational and occupational options of women are limited, not only the individuals involved, but the nation at large are hurt. Vocational education plays an important role in equipping women with the skills needed to compete in the labor market for better paying jobs, particularly in the skilled trades and in technical fields.

\* \* \*

This report is the eighth in a series presenting data on the status of men and women in Minnesota's AVTI system. The format is like that of publications of the past several years. The body of the report provides current and trend data statewide for enrollment, budgets, and staff patterns. A detailed appendix provides information for individual AVTIs, a course-by-course statewide listing, and definitions.

It should be noted that some enrollment changes may be due to several courses being assigned to a different curriculum area this year (e.g. Cosmetology and Food service). Courses previously assigned to trade-industrial have been assigned to home economics this year.

The data presented in this report can be used both statewide and at individual schools. Statistical information is no substitute for active sex equity efforts. However, the statistics can be used to indicate areas needing special efforts and to measure progress.

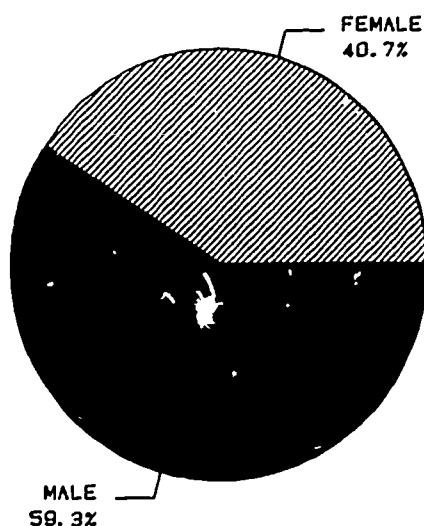
# AVTI ENROLLMENTS, 1982-83

Male students account for the majority of AVTI enrollments. In 1982-83, the total statewide enrollment of 49,386 consisted of 20,077 female students and 29,309 male students.

The AVTI system has a lower percentage of female students than all other public post-secondary systems in Minnesota -- the Community College system (57 percent female), the State University system (53 percent female), and the University of Minnesota system (45 percent female). In the fall of 1982, AVTIs had higher enrollments than any of these systems except the University of Minnesota.

Women are the majority of students at three AVTIs: Brainerd, Rochester, and Willmar. At ten additional AVTIs, women represent less than one-third of students. Women account for one-third to one-half of students at the remaining 20 AVTIs. (See Table 1.)

## AVTI HEADCOUNT, 1982-83



49,386 STUDENTS

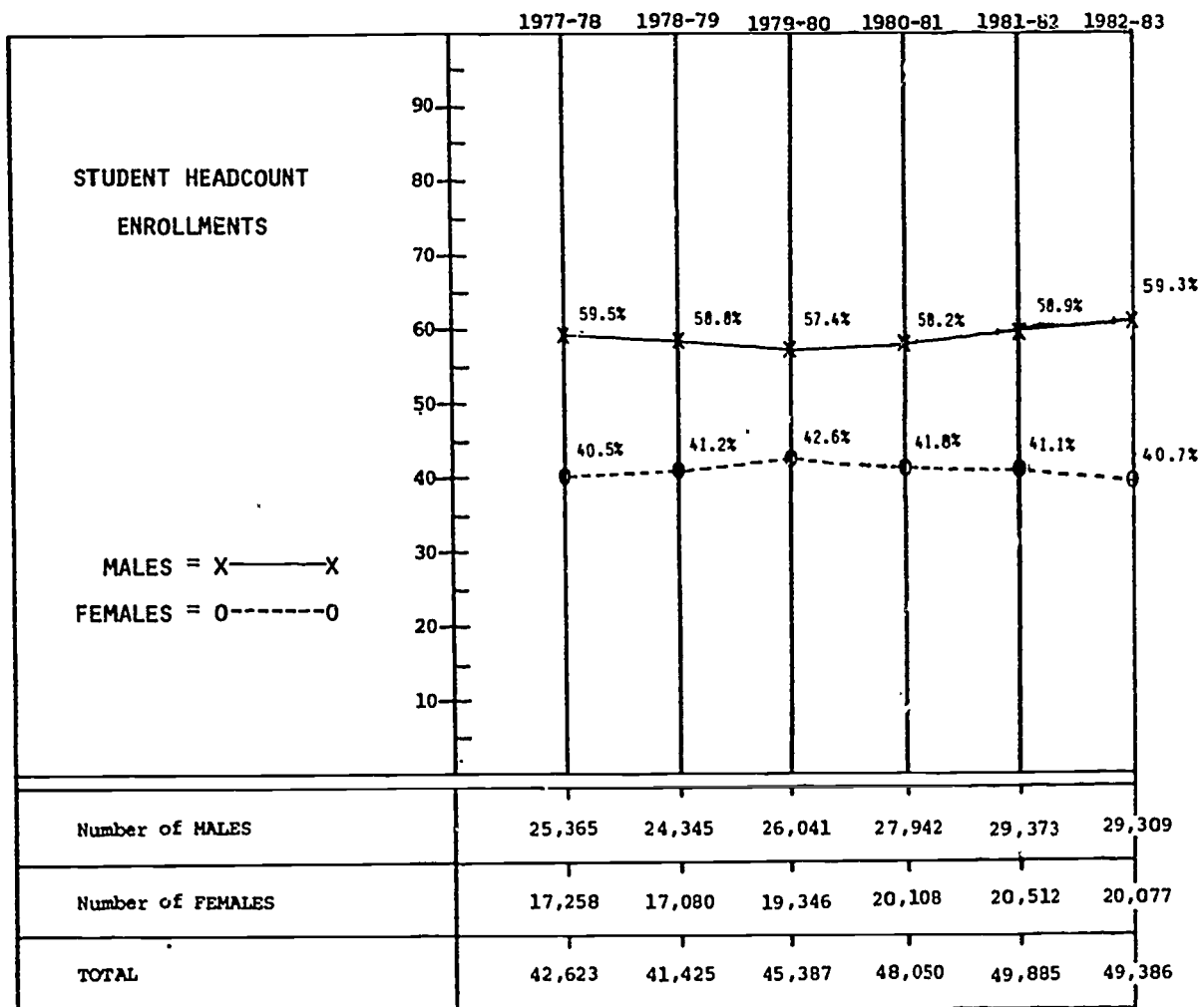
Except where otherwise noted, all enrollment data in this report refer to an actual student headcount of all students enrolled at a particular time during the school year. Average daily membership, the usual measure of enrollment, is not reported by sex. Enrollment data also exclude students participating in special needs programs except as noted.

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# AVTI ENROLLMENT TRENDS

Total enrollment in Minnesota's AVTIs decreased by 499 students between 1981-82 and 1982-83. The percentage of AVTI students who are women dropped slightly.

Overall, female enrollments have remained fairly constant. Since 1977-78, there has been a 16 percent increase in both female and male students.



## PROGRAM TYPES, 1982-83

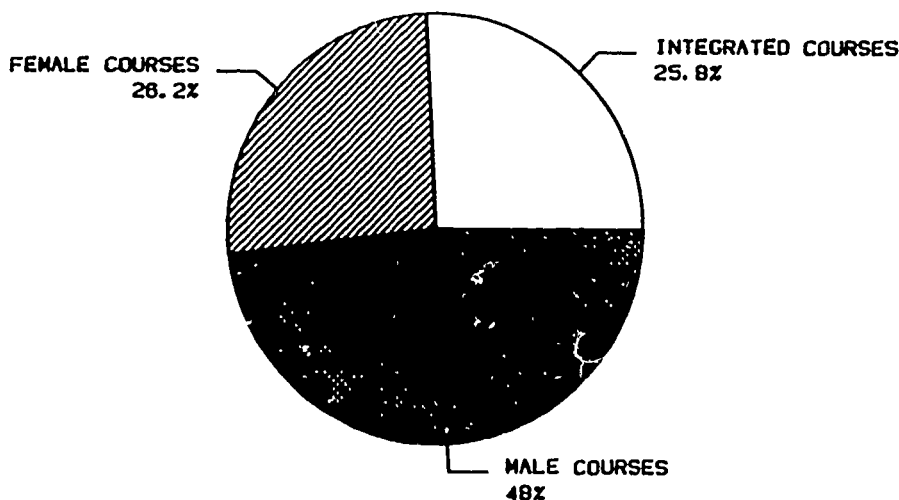
A total of 768 programs are offered at individual AVTIs in the state, with an average of 23 programs per school.

Nearly three-fourths of AVTI programs are "segregated." This term is not meant to imply that segregation is intentional. In this report, a segregated program is defined as one in which more than 80 percent of the students are of one sex.

Segregated programs in which more than 80 percent of students are men are defined as "male" programs, and those in which more than 80 percent of the students are women are defined as "female" programs. All other programs are considered "integrated"

For example, Auto Mechanics is usually a segregated "male" course and Nursing is usually a segregated "female" course, while General Merchandising is usually an integrated course. A course may be segregated at one AVTI and integrated at another AVTI.

### AVTI PROGRAMS, 1982-83



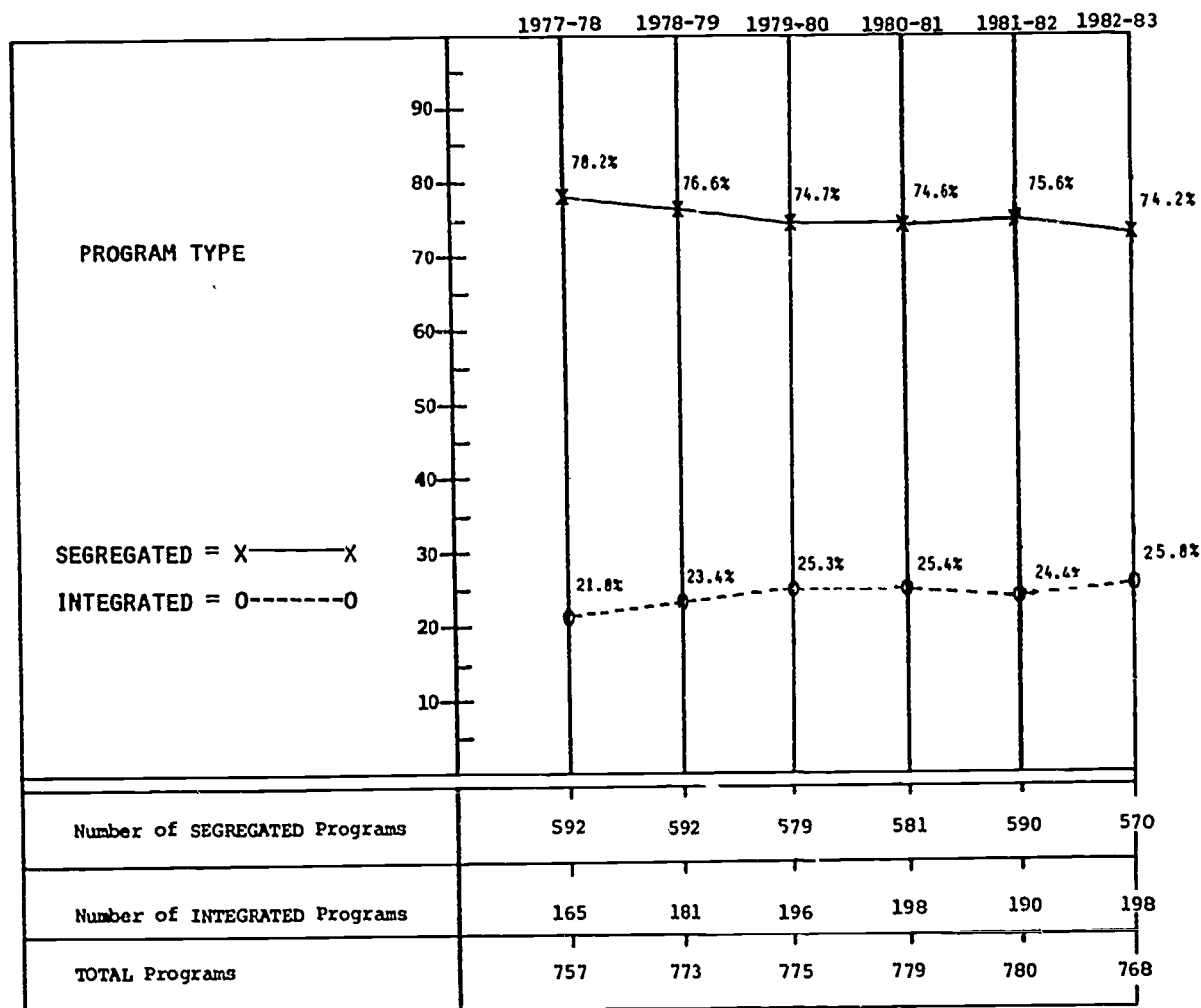
768 PROGRAMS

Of the 768 programs offered at individual AVTIs, 369 are segregated "male" programs and 201 are segregated "female" programs. In fact, thirty percent of programs are either all-male or all-female. (See Tables 2 and 4.)

# PROGRAM TYPES - TRENDS

The number of AVTI programs which are integrated increased in the last year.

The total number of programs offered at individual AVTIs has increased by over 1 percent in this period, while the number of integrated programs has increased by 20 percent. Integrated programs account for one-quarter of all AVTI programs.

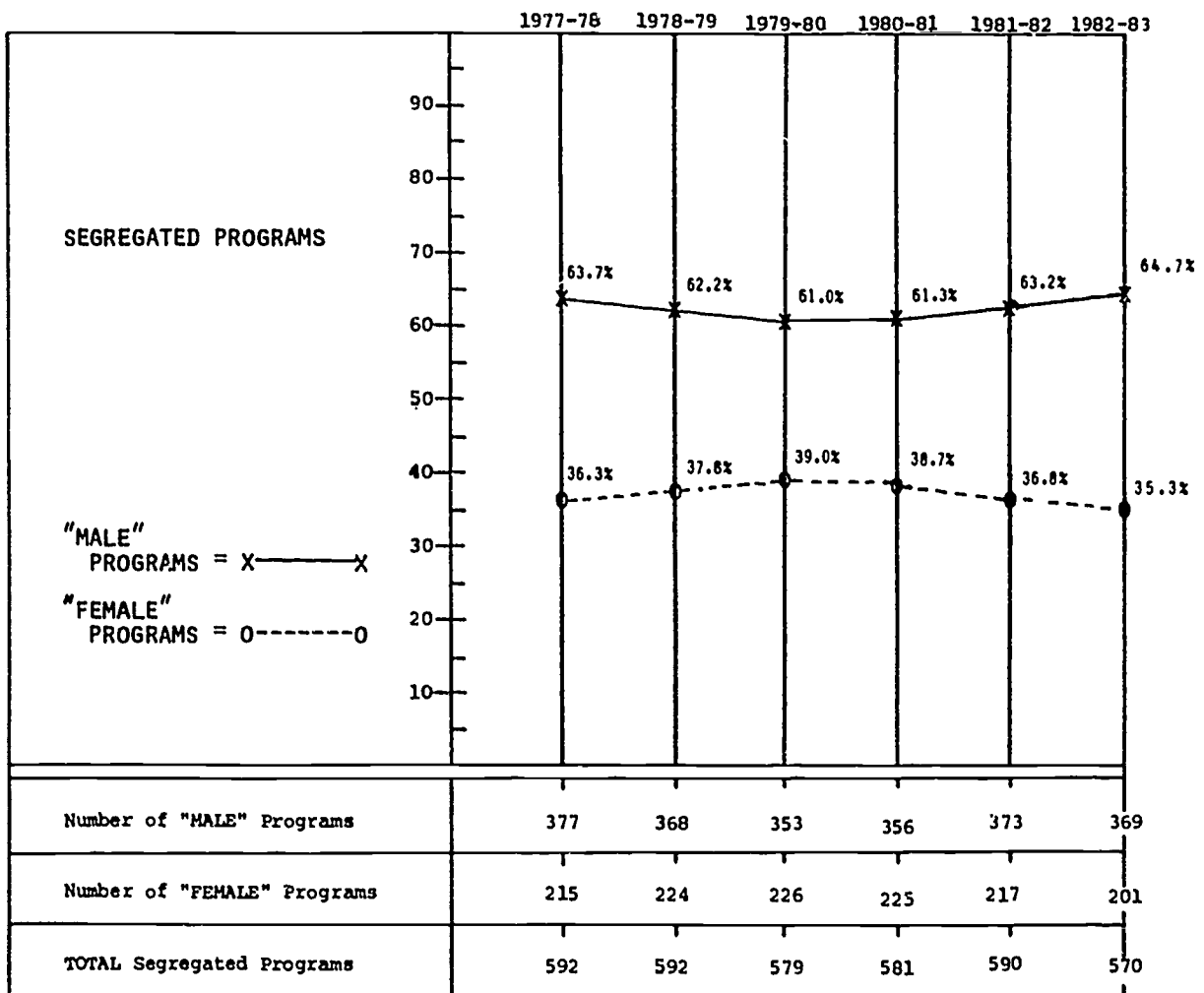




# PROGRAM TYPES - TRENDS, continued

Segregated programs are not evenly divided into "male" and "female" courses. In all five years reported here, segregated "male" courses have outnumbered segregated "female" courses by a substantial margin.

Data for the last years show a slight reversal of the trend toward equalizing numbers of "male" and "female" programs. There has been a net decrease in the number of "male" programs and the number of "female" programs.



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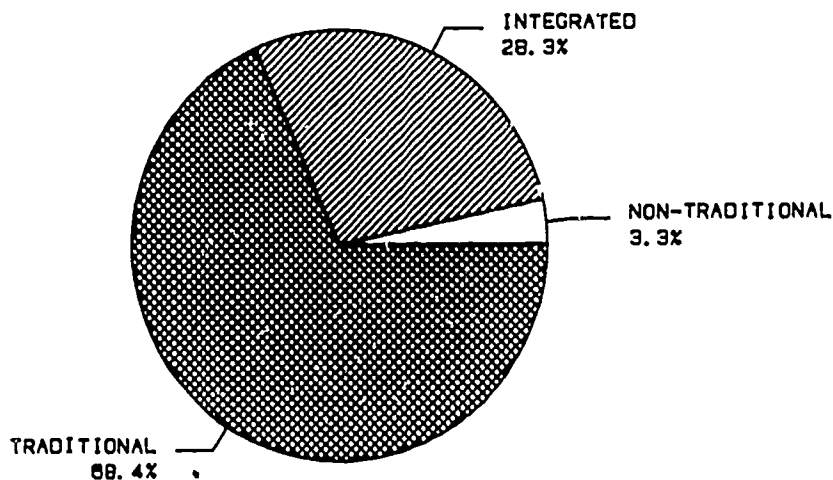
## ENROLLMENTS BY PROGRAM TYPE, 1982-83

The number of students enrolled in a program varies widely from 4 students in General Merchandising/Retail Sales at Pine City AVTI to 634 in General Secretarial/Clerical Occupations with Shorthand at Suburban Hennepin AVTI. For this reason, it is helpful to compare the numbers of students as well as the numbers of programs, to determine enrollment patterns by sex.

A "traditional" student is one enrolled in a segregated program dominated by students of the same sex - men in "male" courses and women in "female" courses. A "non-traditional" student is one enrolled in a course in which more than 80 percent of students are of the other sex.

As shown in the chart below, the large majority of AVTI students are enrolled in traditional programs, while about 1 in 30 students are enrolled in programs which are non-traditional for their sex. More than one-quarter of all AVTI students are enrolled in integrated programs.

AVTI ENROLLMENT BY PROGRAM TYPE, 1982-83



49,386 STUDENTS

At seven AVTIs -- Brainerd, Dakota County, Mankato, Minneapolis, Moorhead, 916 and St. Cloud -- integrated programs account for more than one-third of all students.

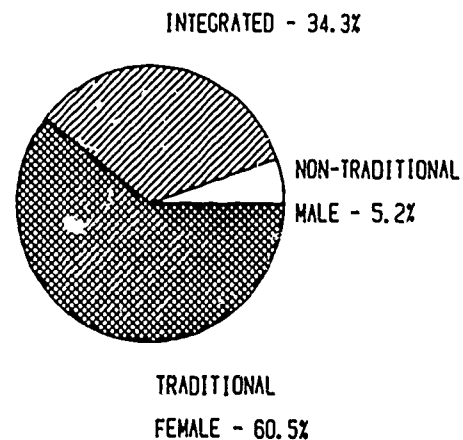
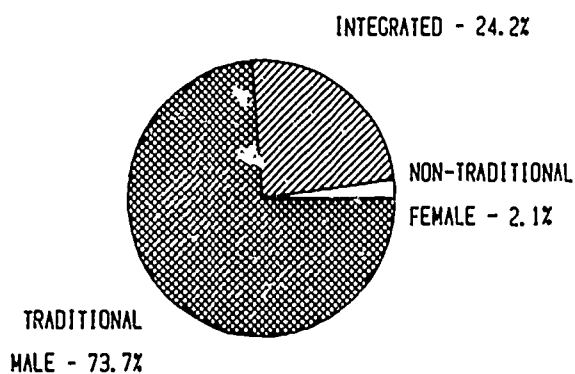
Hibbing and East Grand Forks have the largest proportion of students enrolled in non-traditional programs, accounting for 8 and 6 percent respectively. (See Table 5.)

# ENROLLMENTS BY PROGRAM TYPE, continued

Both male and female students are likely to be enrolled in programs which are traditional for their sex, and unlikely to be enrolled in non-traditional programs. However, there are differences in the enrollment patterns of men and women attending AVTIs.

Female students are more likely than male students to be enrolled in integrated programs -- 34 percent of women compared with 24 percent of men. Female students are almost three times as likely as male students to be enrolled in non-traditional programs -- about 1 in 19 female students compared with about 1 in 48 male students. (See Tables 6 and 7.)

## AVTI ENROLLMENT BY PROGRAM TYPE, 1982-83



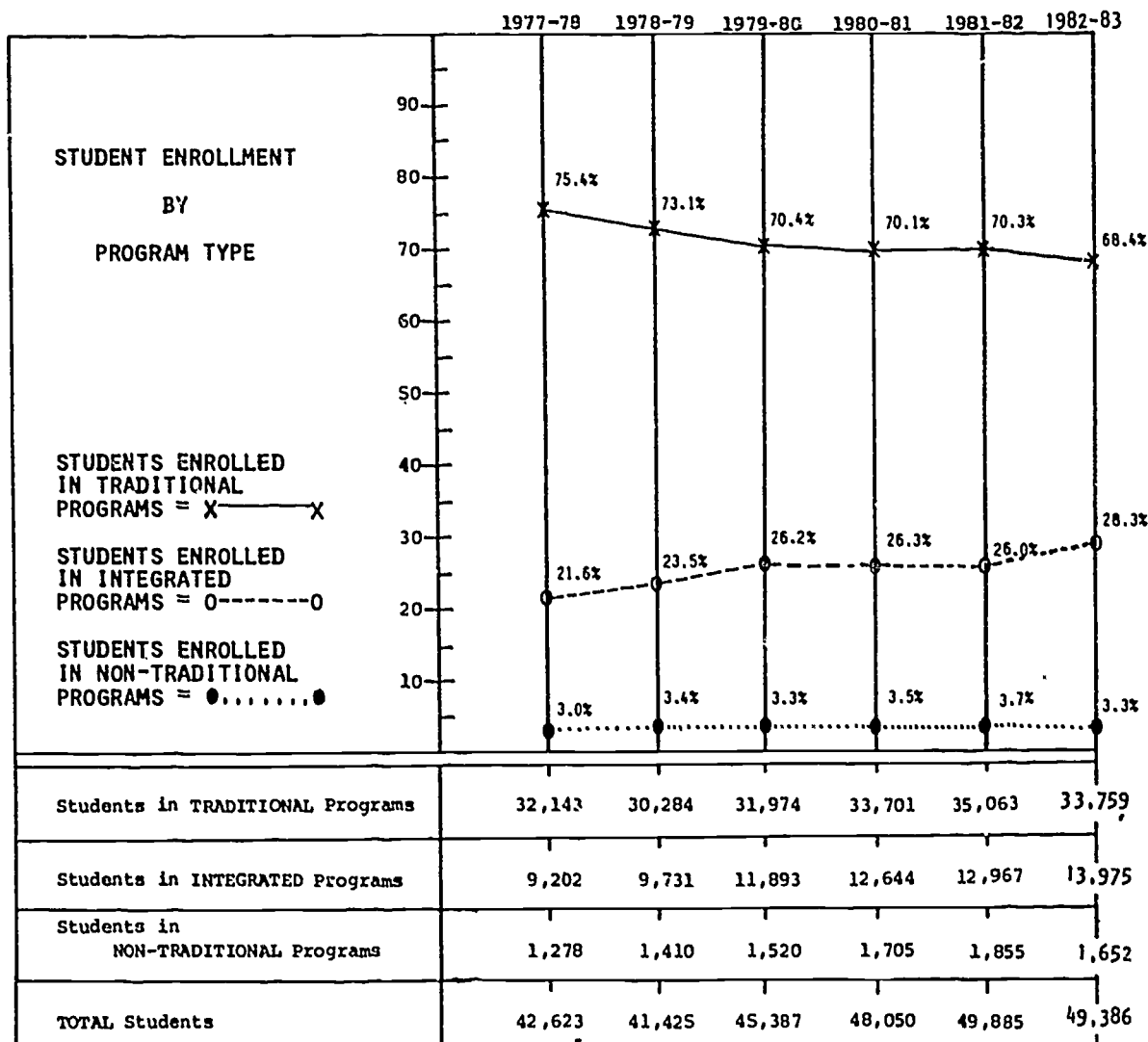
Statewide, almost one-fifth of AVTI students are enrolled in programs which are either all-male or all-female. There are 5,814 male students in programs with no women and 3,744 female students in courses with no men. (See Table 3.)

In addition, many courses have only 1 female student or only 1 male student. These pioneering students are in courses with an average of 46 students of the other sex. Sixty-six women are "the only woman" in courses such as Auto Mechanics and Production Agriculture. Twenty-eight men are "the only man" in courses such as Practical Nursing and Child Care.

# ENROLLMENTS BY PROGRAM TYPE - TRENDS

Very little change occurred from 1979-80 through 1981-82 in enrollment patterns for traditional, non-traditional, and integrated programs. This past year there was a decrease in traditional enrollments and an increase in integrated enrollment. Non-traditional enrollments decreased slightly. Part of the changes this year can be accounted for by the assignment of several courses to different curriculum areas than previous years.

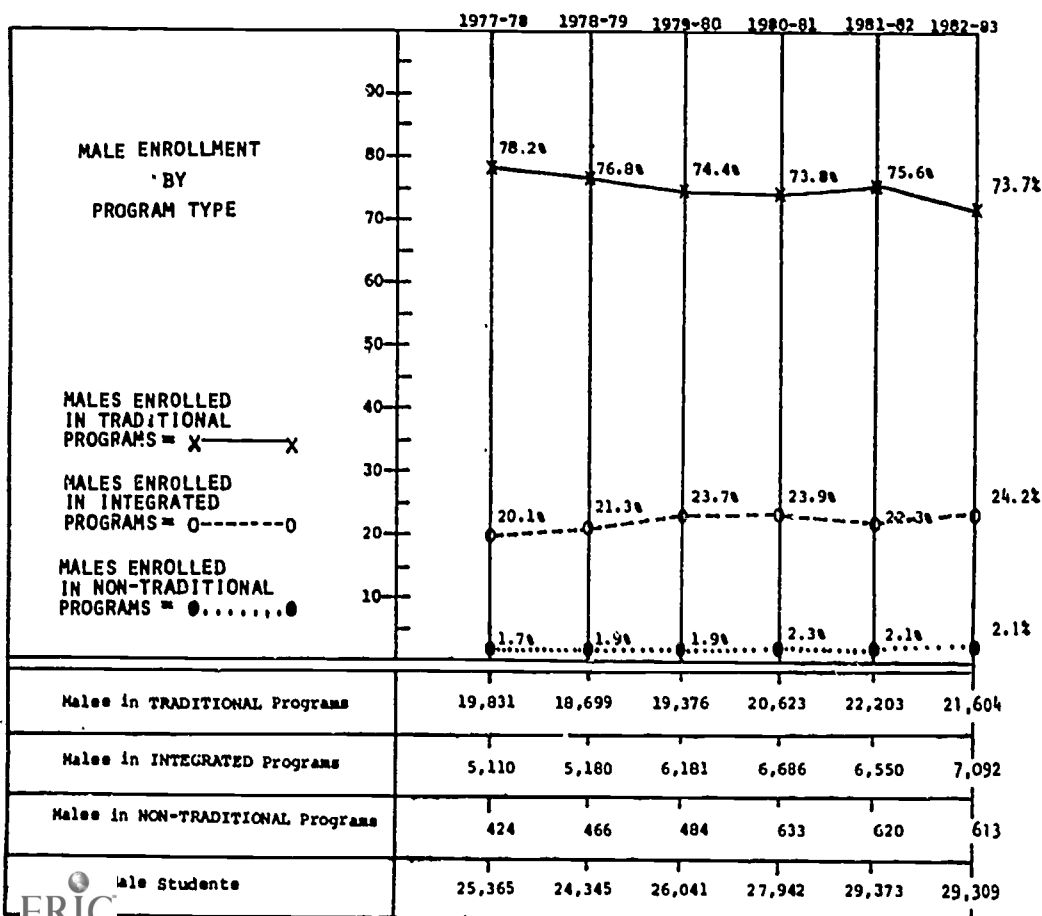
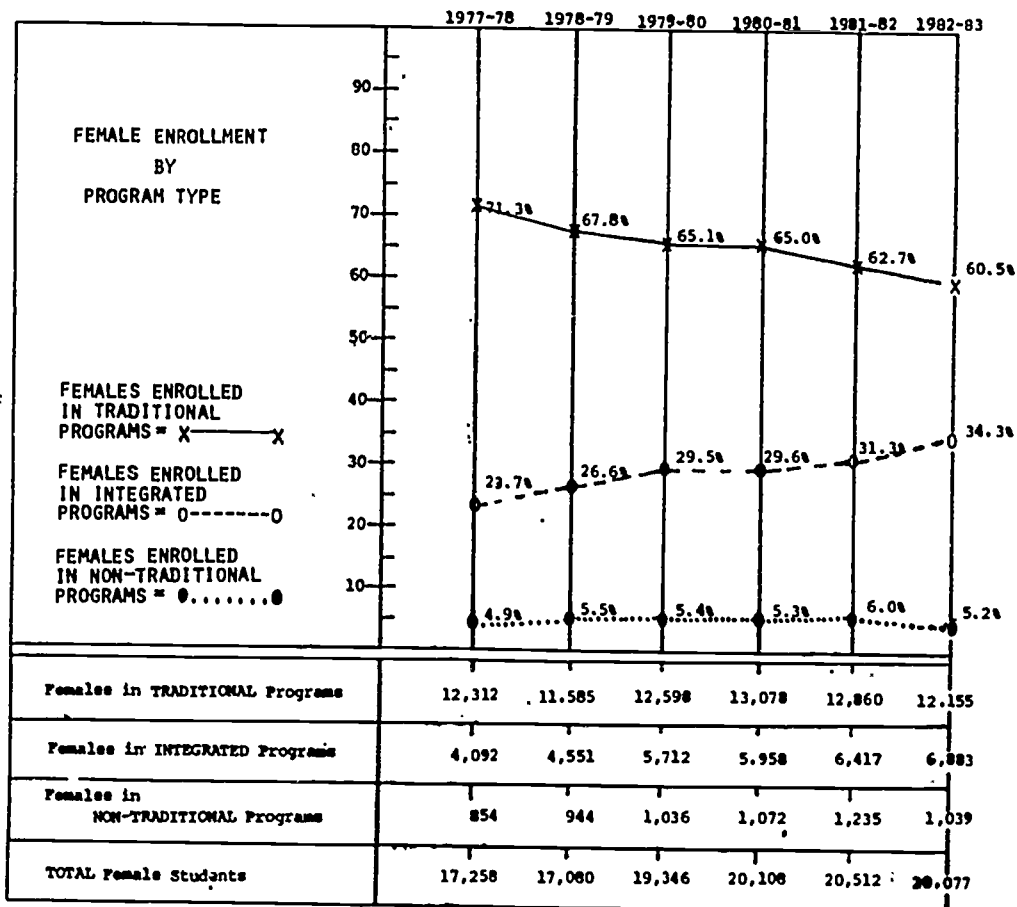
The proportion of students enrolled in integrated programs has increased from just over one-fifth of all students to more than one-quarter of students. Non-traditional programs account for less than 1 in 30 students, and there has been relatively little change in this area since 1977-78.



# ENROLLMENTS BY PROGRAM TYPE - TRENDS, cont.

There has been more change in female enrollment patterns than in male enrollment patterns.

Female integrated enrollments have increased from fewer than 1 in 4 to more than 1 in 3. Female non-traditional enrollments decreased after a high of 6% in 1981-82.



Since 1977-78 there has been positive change in male enrollment patterns. However, this change has been at a slower rate than that of female enrollments.

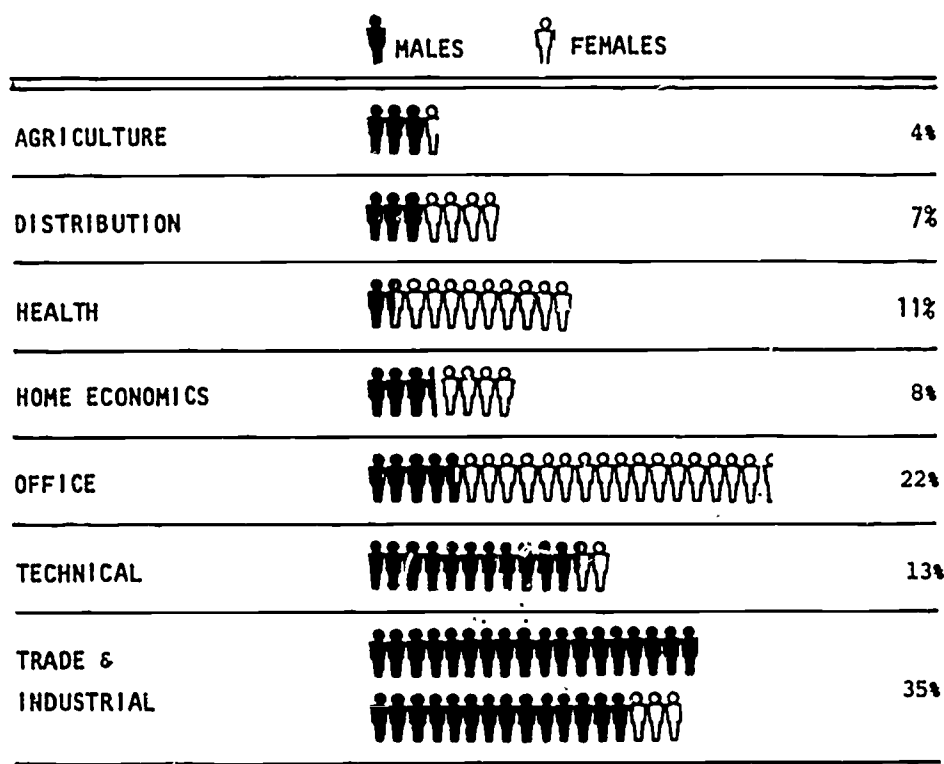
Male enrollments in integrated programs have increased from about 1 in 5 to almost 1 in 4.

# ENROLLMENT BY CURRICULUM AREA, 1982-83

The chart below shows the distribution of male and female students in the seven AVTI curriculum areas.

Almost two-thirds of female students are enrolled in health or business-office programs, while nearly three-fourths of male students are enrolled in technical or trade-industrial programs. (See Table 8.)

AVTI HEADCOUNT BY CURRICULUM AREA, 1982-83



Each figure represents approximately 1% of total enrollment, or 494 students.

There is also segregation within program areas. For example, three-fourths of male office students are enrolled in just 2 of the 18 courses offered: Accounting and Data Processing.

More than half of female students in the trade-industrial area are enrolled in just 2 of the 56 courses: Commercial Art and Graphic Arts. (See table 11.)

# ENROLLMENT BY CURRICULUM AREA - TRENDS

There have been few changes in the patterns of male and female enrollment by program since 1977-78. Agriculture, technical, and trade-industrial courses continue to be 'male' courses; business and office is nearly 80 percent female. Home economics and distribution are more balanced areas, although distribution is less balanced than it was in 1977-78. Home economics enrollments this year reflect the addition of some courses (e.g. Cosmetology and Food Service) which had previously been assigned to trade-industrial.

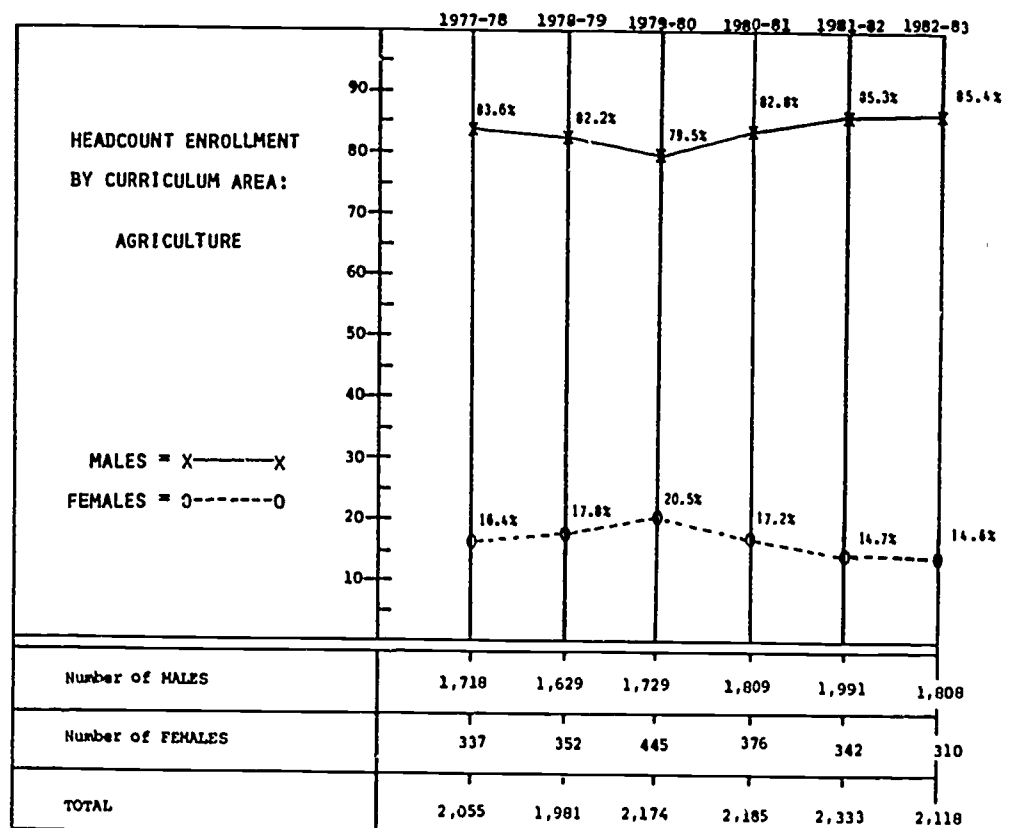
The charts below and on the following pages show changes in enrollment patterns by curriculum area. For more information on enrollment in specific courses in 1982-83, see Table 11 in the appendix to this report.

\* \* \* \* \*

Women represent about 1 in 7 agriculture students.

Female enrollments in this area are below that of 1977.

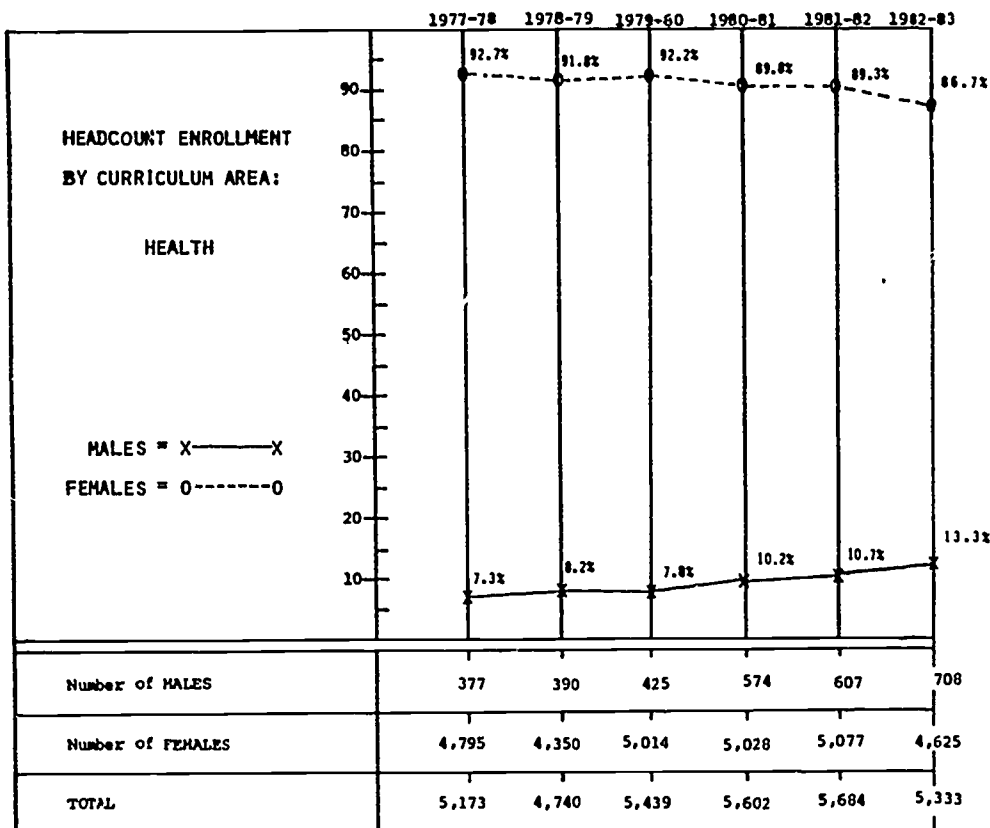
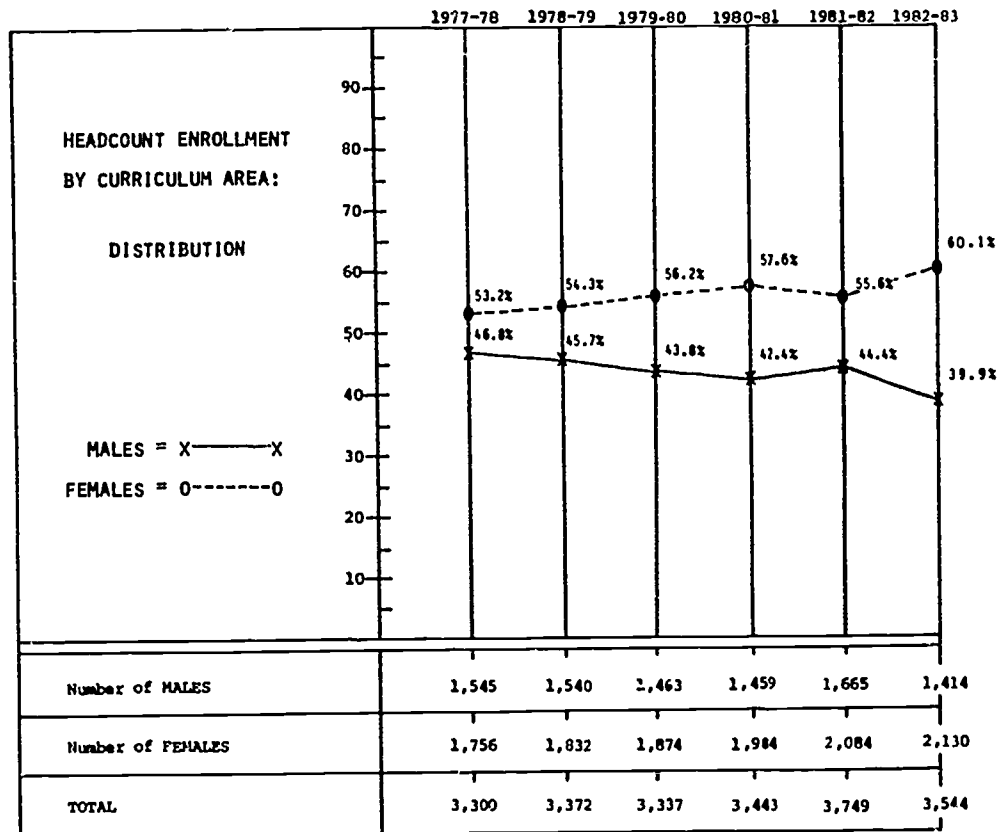
Of the 12 agriculture courses offered statewide, 6 are 'male' courses, one is a 'female' course, and 5 are integrated courses. The 'male' courses account for just over half of students, down from three-fourths of students last year.



# CURRICULUM AREA - TRENDS, cont.

Distribution has historically been the most balanced by sex of the curriculum areas, although this past year shows less balance than previous years.

Of the 24 distribution programs offered statewide, 12 are integrated while 6 are "male" courses and 6 are "female" courses. Over two-thirds of students are enrolled in the integrated courses.



Men now represent nearly 1 in 8 health students. Their enrollment has increased by 88 percent since 1977-78 compared to a 4 percent decrease in female enrollments.

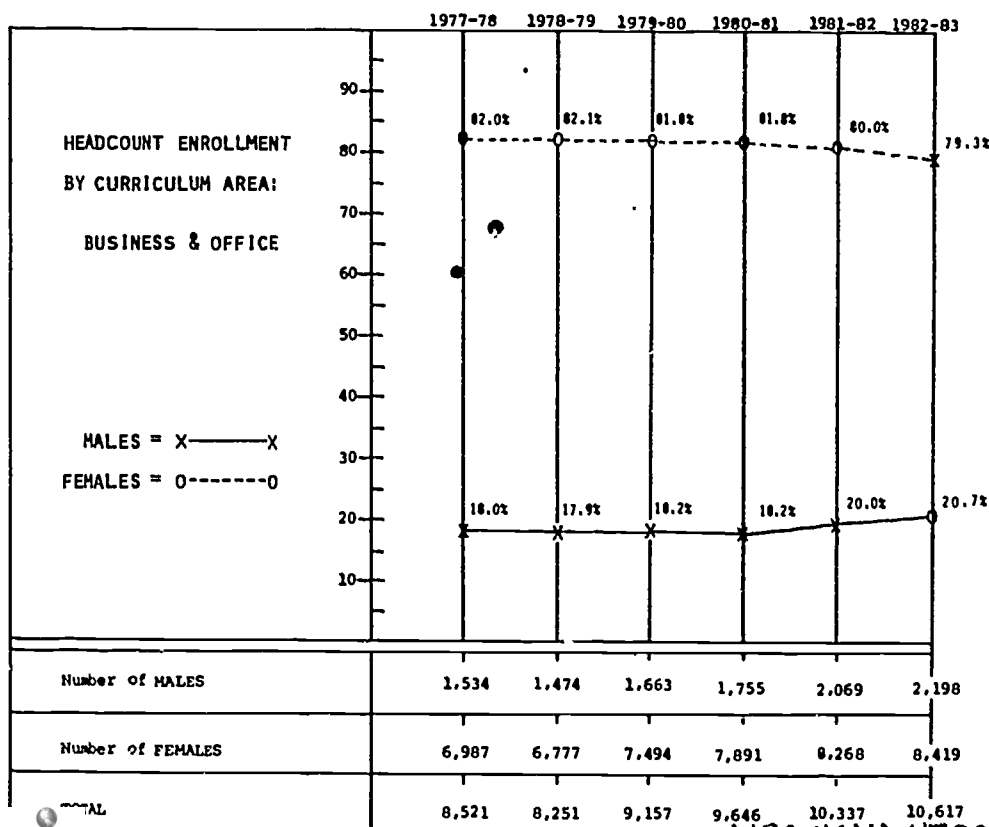
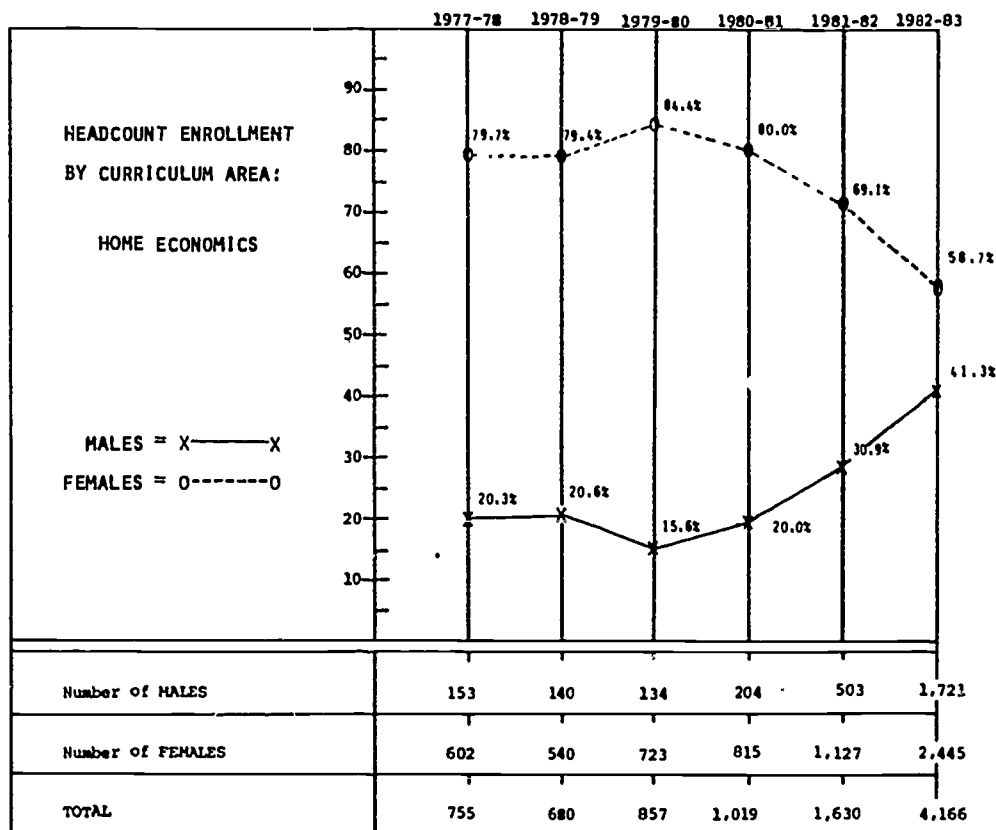
Of the 20 health courses offered statewide, 10 are "female" courses, 3 are "male" courses, and 7 are integrated courses. Ninety percent of health students are enrolled in a "female" class.



# CURRICULUM AREA - TRENDS, cont.

There has been more change in the home economics area than any other. Men now represent more than 1 in 3 students. Part of this change is due to the addition of courses which had previously been assigned to trade-industrial.

Of the 22 home economics courses offered statewide, 8 are "female", 9 are integrated, and 5 are "male". More than two-fifths of students are enrolled in integrated courses.



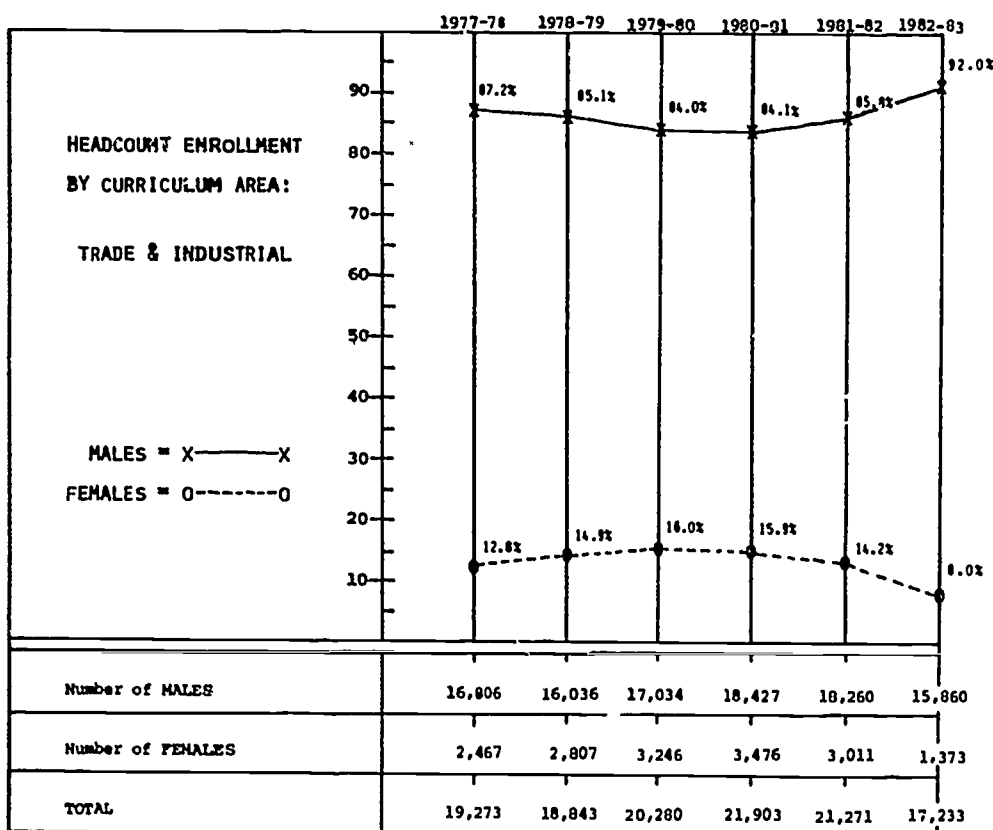
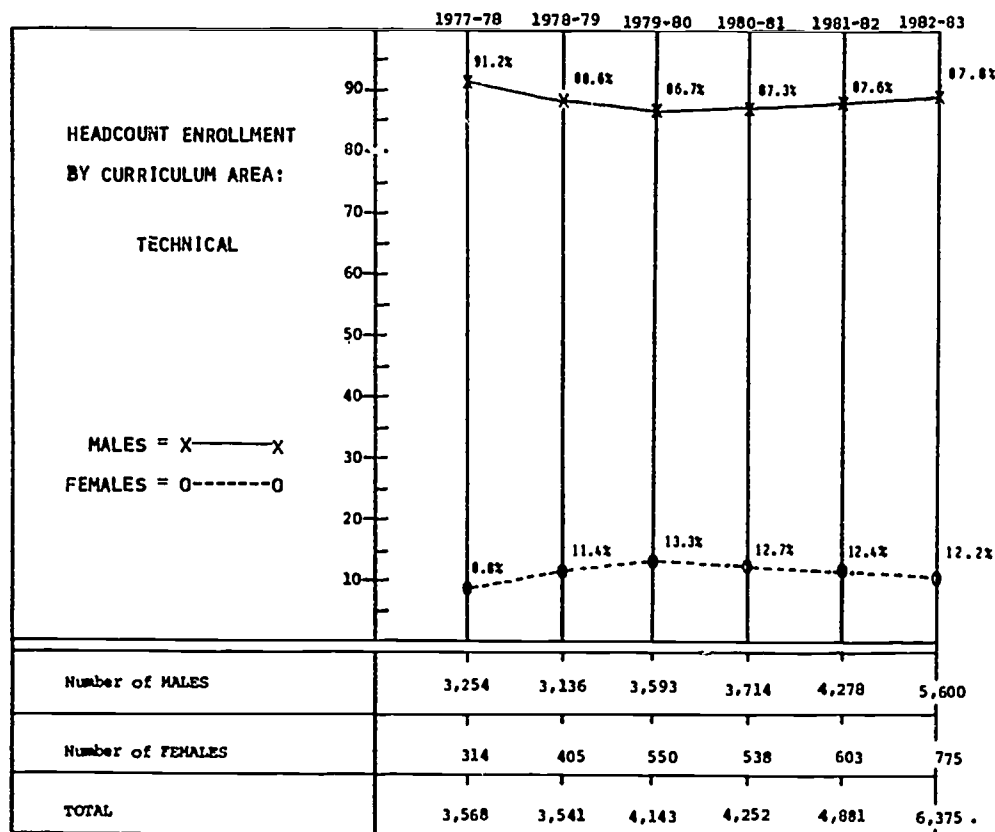
Men represent 1 in 5 business-office students, and there has been little change in this area since 1977-78.

Of the 18 courses offered statewide, 10 are "female" courses, and 8 are integrated courses. Nearly half the students are enrolled in the integrated courses.

# CURRICULUM AREA - TRENDS, cont.

Women account for about 1 in 8 technical students. Although their representation decreased in the last several years, it remains above the level of 1977-78.

Of the 31 technical courses offered statewide, 23 are 'male' courses and 8 are integrated courses. The 'male' courses account for nine-tenths of the students.



Women account for about 1 in 13 trade-industrial students. The drop in female enrollments in the past year is mostly due to the assignment of several courses (e.g. Cosmetology and Foodservice) to the Home Economics areas this year.

Of the 56 trade-industrial courses offered statewide, 45 are male and 11 are integrated. The integrated courses account for 12 percent of students.

There are 7 courses with no female students.

## PROGRAM BUDGETS, 1982-82

Program expenditures provide another method of measuring sex equity. The program budget of the AVTI system totals \$77.2 million, a figure which includes instructors' salaries and all other program costs, but which does not include general administration and costs associated with support programs.

Of this amount, \$50.0 million is spent on male students and \$27.2 million is spent on female students, a ratio of almost two to one.

Program costs are apportioned by applying male and female enrollment ratios in each program to the net budget for that program. For example, a budget of \$100,000 for a program with 90 male and 10 female students is recorded as \$90,000 spent on male students and \$10,000 spent on female students. (See Tables 12 and 13.)

### AVTI PROGRAM COSTS APPORTIONED BY SEX OF STUDENT



1982-83 PROGRAM BUDGET - \$77.2 MILLION

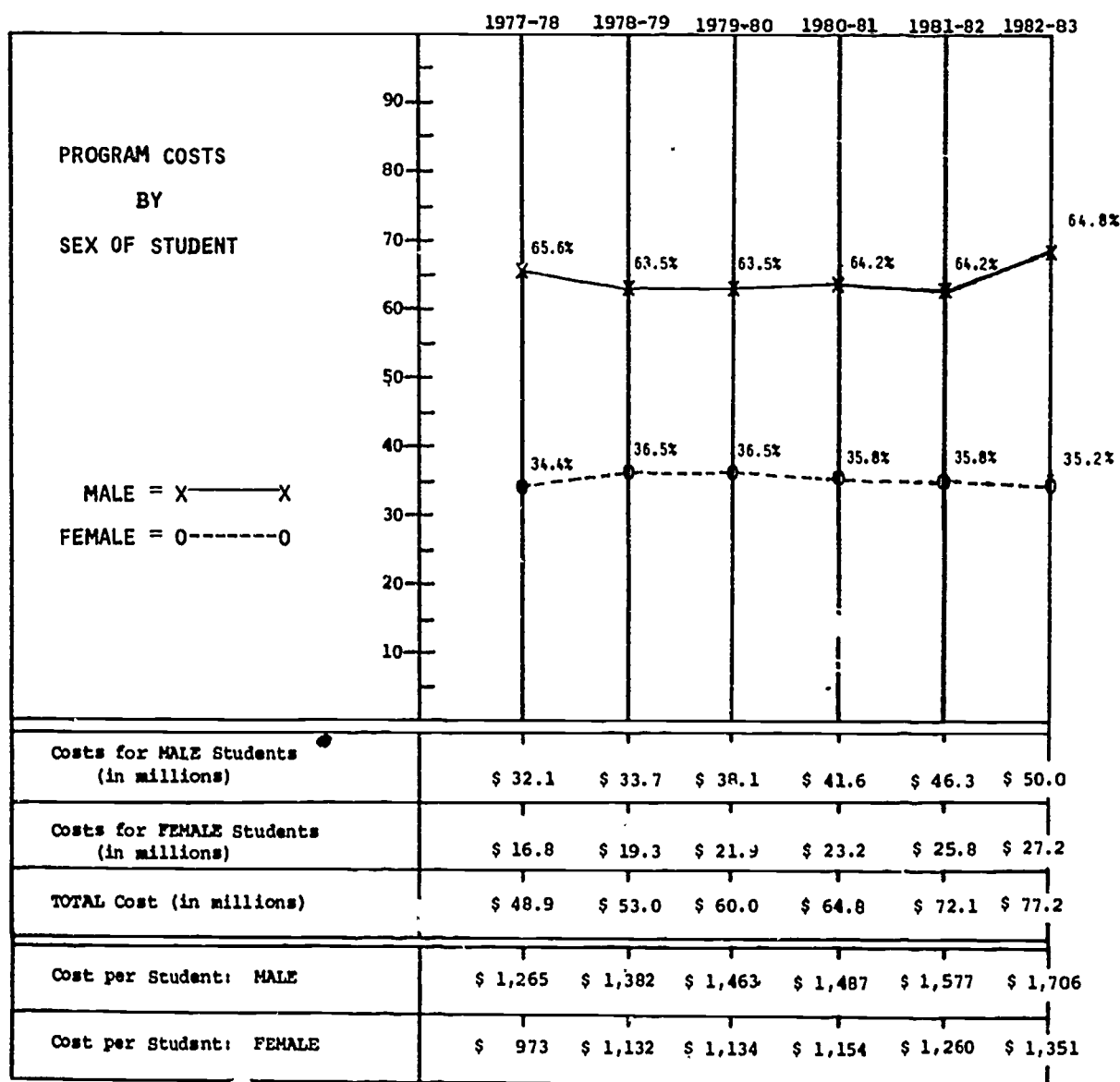
Women account for 41 percent of AVTI enrollments, but they receive 35 percent of budgets statewide. Nine schools -- Albert Lea, Bemidji, Brainerd, Canby, Faribault, Hibbing, Minneapolis, Pipestone, and Red Wing -- have "female" budgets which are in excess of female enrollments. In the remaining 24 AVTIs, financial resources apportioned to male students exceed their representation in the student population.

# PROGRAM BUDGETS - TRENDS

The proportion of AVTI budgets spent on female students remains slightly above the 1977-78 level. Total budgets statewide increased from \$48.9 million to \$77.2 million over this period.

The net result of these changes was that male students received additional \$17.9 million while female students received an additional \$10.4 million.

Costs per student increased in the same period by \$441 for male students and by \$381 for female students.

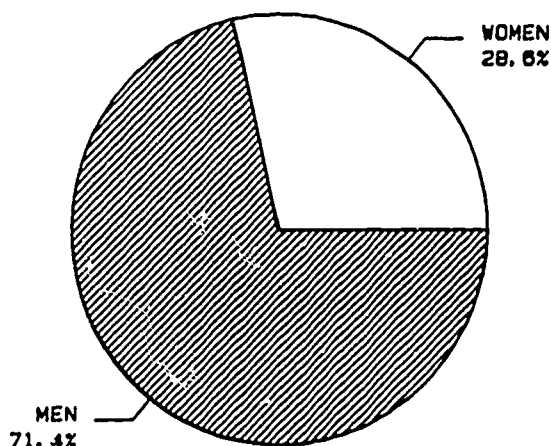


# STAFF PATTERNS, 1982-83

Staff patterns provide another measure of sex equity in vocational education. Staff data in this report are expressed in full-time equivalents (FTEs).

There are 1,953 AVTI teachers in the seven curriculum areas. There are an additional 387 staff in vocational-related activities. Overall, less than one-third of these staff are women. Women account for slightly over one-quarter of the curriculum area and two-fifths of the vocational-related staff. The only school where a majority of teachers are women is Rochester AVTI, where women account for 56 percent of students and 53 percent of teachers. (See Table 14.)

## AVTI POST-SECONDARY TEACHERS, 1982-83



### 2,341 FTE TEACHERS

Female teachers have lower average salaries than male teachers at 32 of the 33 AVTIs, including 6 schools where the women have more years of service than their male counterparts. The exception is Hibbing AVTI, where the women earn an average of \$776 more per year with an average of 4.2 more years of service.

Statewide, men now earn an average of \$2,337 per year of service, compared with \$2,279 for women. (See Table 15.)

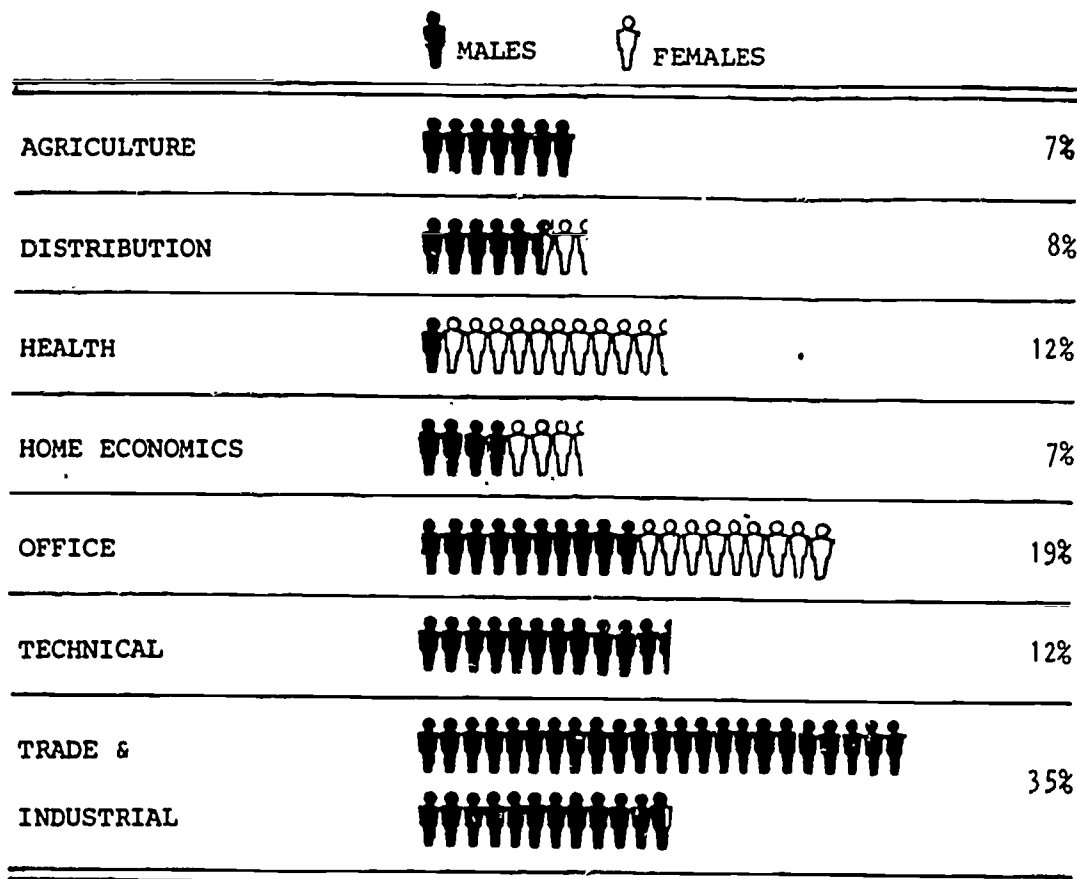
Women account for 16 percent of post-secondary administrators and supervisors in the state.

# TEACHERS BY CURRICULUM AREA, 1982-83

The chart below shows the distribution of teachers by curriculum area, excluding vocational related activities. More than three-fourths of female teachers are in health or business-office programs, while more than three-fifths of male teachers are in technical or trade-industrial programs.

Only 11.6 of the 1,953.4 FTE teachers are women in technical or trade-industrial programs -- accounting for about 1 percent of all teachers in these areas.

## AVTI TEACHERS BY CURRICULUM AREA, 1982-83



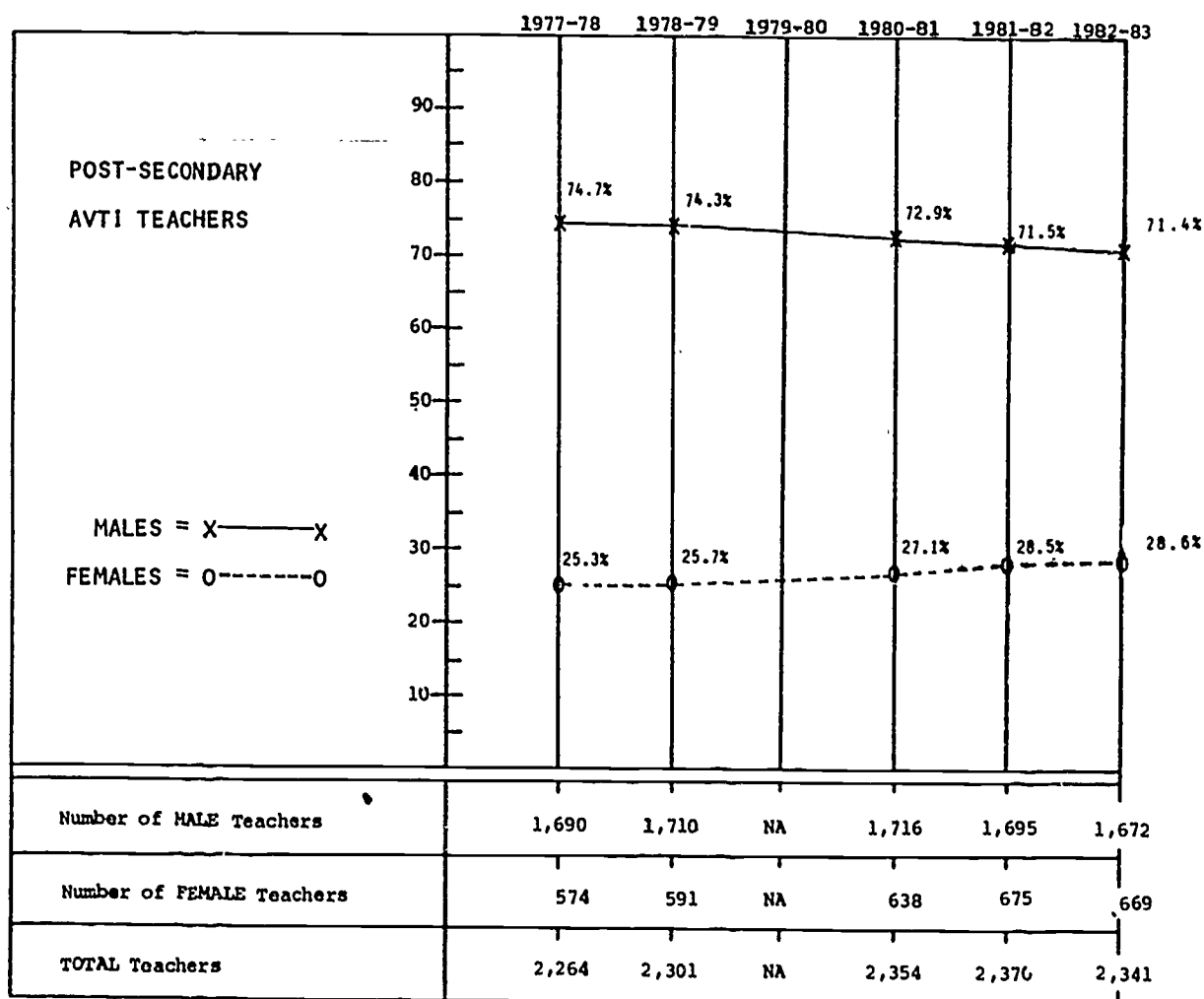
Each figure represents 1% of total post-secondary AVTI teachers, or approximately 20 teachers.

The proportion of teachers who are female is lower than the proportion of students who are female in every program area except health. This is true even for some "female" areas such as business-office, where women are 79 percent of the students but only 48 percent of the teachers.

# STAFF TRENDS

Since 1977-78, there has been a net increase of 77 FTE teaching positions at Minnesota AVTIs. This included a decrease of 18 male teachers and a gain of 95 female teachers. The statewide representation of female teachers increased accordingly over this period, from 25 percent to 28.6 percent of all AVTI teachers.

Despite a 3 percent decrease in the past year, there has been an overall gain in the representation of women among post-secondary vocational administrators and supervisors since 1977-78. Women have gone from 11 to 16 percent during this time.



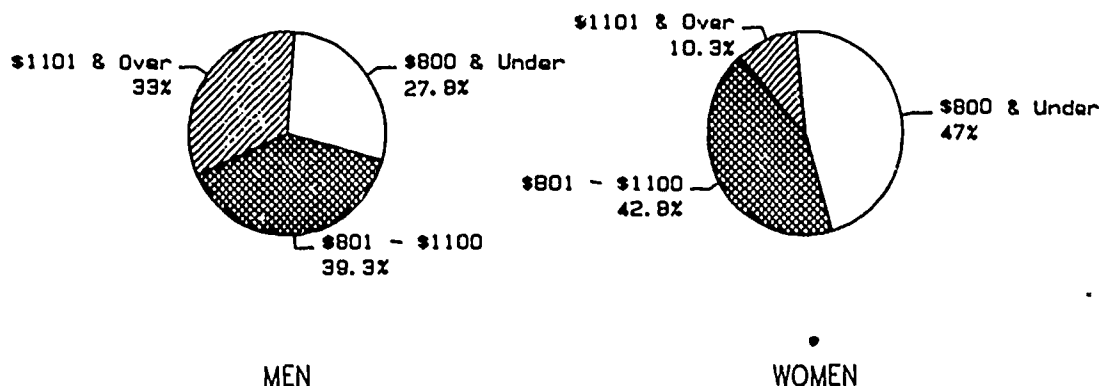
# STUDENT FOLLOW-UP, 1982-83

Data are available for 6,813 women and 7,513 men who completed AVTI programs in fiscal year 1982 and who responded to a survey one year later. In general, there are few differences between male and female graduates except in occupation and earnings. Both men and women are in occupations traditional for their sex, and the women earn less.

The largest occupational cluster for male graduates is trade-industrial jobs, while the largest cluster for women is office jobs. The single most likely occupation for the men is Sales Associate. For women, the single most likely occupation is Licensed Practical Nurse.

One year after completing their vocational training, the women working full-time had median earnings of \$9,792 compared with \$11,556 for their male counterparts. This represents an increase of \$36 for women and a decrease of \$492 for men from the previous year.

## MONTHLY WAGES ONE YEAR AFTER GRADUATION AVTI GRADUATES EMPLOYED FULL-TIME IN JOBS RELATED TO TRAINING (1983 REPORT)



The state minimum wage in 1983 was \$3.35 per hour, or \$581 per month for full time employees. Although most AVTI graduates earned more than this, the women were more likely than the men to have earnings at or near minimum wage -- 13 percent of the female graduates and 8 percent of the male graduates earned \$600 per month or less.



## FOLLOW-UP, continued

Most graduates -- 81 percent of both women and men -- are employed one year later. Both male and female graduates are likely to work full-time, although more women than men work part time. Seventy percent of the women and 62 percent of the men are employed in jobs related to their training.

Female graduates express a higher level of satisfaction than male graduates in most questions related to their AVTI experience and their present jobs. However, male graduates are more satisfied with advancement potential. Twenty-three percent of male graduates and 21 percent of female graduates report that they have received job advancement in the first year after graduation.

Employers are more likely to rank female graduates above average on each measure included in the survey: quality of work, quantity of work, knowledge important to job success, ability to operate equipment, and reading, verbal, and computational skills.

\* \* \* \* \*

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TABLE 1. HEADCOUNT ENROLLMENTS BY SEX, 1982-83

<u>AVTI</u>	<u>Female Students</u>	<u>Male Students</u>	<u>Total Students</u>	<u>Percent Female</u>
Albert Lea	190	397	587	32.4 %
Alexandria	797	1,065	1,862	42.8 %
Anoka	1,141	1,678	2,819	40.5 %
Austin	380	551	931	40.8 %
Bemidji	281	284	565	49.7 %
Brainerd	495	475	970	51.0 %
Canby	131	328	459	28.5 %
Dakota County	1,050	1,336	2,386	44.0 %
Detroit Lakes	315	651	966	32.6 %
Duluth	906	1,223	2,129	42.6 %
East Grand Forks	410	413	823	49.8 %
Eveleth	189	199	388	48.7 %
Faribault	192	333	525	36.6 %
Granite Falls	182	321	503	36.2 %
Hibbing	227	542	769	29.5 %
Hutchinson	414	611	1,025	40.4 %
Jackson	206	530	736	28.0 %
Mankato	869	1,125	1,994	43.6 %
Minneapolis	1,770	2,448	4,218	42.0 %
Moorhead	480	574	1,054	45.5 %
916	2,064	2,374	4,438	46.5 %
Pine City	140	365	505	27.7 %
Pipestone	199	489	688	28.9 %
Red Wing	182	595	777	23.4 %
Rochester	796	630	1,426	55.8 %
St. Cloud	852	1,239	2,091	40.8 %
St. Paul	1,459	2,174	3,633	40.2 %
Staples	110	559	669	16.4 %
Suburban Hennepin	1,893	3,497	5,390	35.1 %
Thief River Falls	231	504	735	31.4 %
Wadena	300	438	738	40.7 %
Willmar	943	898	1,841	51.2 %
Winona	283	463	746	37.9 %
TOTAL	20,077	29,309	49,386	40.7 %

TABLE 2, SEGREGATED AND INTEGRATED PROGRAMS, 1982-83

AVT I	Total Programs	Segregated		Total	Integrated Programs	Percent Integrated
		"Female" Programs	Male" Programs			
Albert Lea	14	2	7	9	5	35.7 %
Alexandria	33	12	15	27	6	18.2 %
Anoka	36	12	12	24	12	33.3 %
Austin	16	4	8	12	4	25.0 %
Bemidji	13	5	5	10	3	23.1 %
Brainerd	23	9	7	16	7	30.4 %
Canby	13	3	6	9	4	30.8 %
Dakota County	35	6	18	24	11	31.4 %
Detroit Lakes	27	6	16	22	5	18.5 %
Duluth	30	8	13	21	9	30.0 %
East Grand Forks	17	8	7	15	2	11.8 %
Eveleth	12	5	5	10	2	16.7 %
Faribault	15	2	10	12	3	20.0 %
Granite Falls	12	4	5	9	3	25.0 %
Hibbing	15	6	6	12	3	20.0 %
Hutchinson	16	5	8	13	3	18.8 %
Jackson	19	4	14	18	1	5.3 %
Mankato	24	5	11	16	8	33.3 %
Minneapolis	31	4	14	18	13	41.9 %
Moorhead	24	8	10	18	6	25.0 %
916	55	15	24	39	16	29.1 %
Pine City	12	3	8	11	1	8.3 %
Pipestone	15	4	7	11	4	26.7 %
Red Wing	18	2	12	14	4	22.2 %
Rochester	25	11	8	19	6	24.0 %
St. Cloud	36	7	18	25	11	30.6 %
St. Paul	41	11	18	29	12	29.3 %
Staples	17	1	10	11	6	35.3 %
Suburban Hennepin	45	7	24	31	14	31.1 %
Thief River Falls	17	4	10	14	3	17.6 %
Wadena	16	3	11	14	2	12.5 %
Willmar	26	8	11	19	7	26.9 %
Winona	20	7	11	18	2	10.0 %
TOTAL	768	201	369	570	198	25.8 %

TABLE 3, SINGLE-SEX ENROLLMENTS, 1982-83

AVTI	# Students		Total Students in One-Sex Programs	Total Students	Percent in One- Sex Programs
	Female In All- F Progs	Male In All- M Progs			
Albert Lea	901	221	311	587	53.0 %
Alexandria	237	341	578	1,862	31.0 %
Anoka	339	140	479	2,819	17.0 %
Austin	63	137	200	931	21.5 %
Bemidji	135	73	208	565	36.8 %
Brainerd	120	110	230	970	23.7 %
Canby	78	219	297	459	64.7 %
Dakota County	272	442	714	2,386	29.9 %
Detroit Lakes	54	231	285	966	29.5 %
Duluth	99	115	214	2,129	10.1 %
East Grand Forks	122	120	242	823	29.4 %
Eveleth	93	99	192	388	49.5 %
Faribault	0	143	143	525	27.2 %
Granite Falls	84	26	110	503	21.9 %
Hibbing	47	0	47	769	6.1 %
Hutchinson	26	118	144	1,025	14.0 %
Jackson	53	343	396	736	53.8 %
Mankato	204	232	436	1,994	21.9 %
Minneapolis	0	0	0	4,218	0.0 %
Moorhead	218	157	375	1,054	35.6 %
916	170	127	297	4,438	6.7 %
Pine City	31	111	142	505	28.1 %
Pipestone	40	111	151	688	21.9 %
Red Wing	40	85	125	777	16.1 %
Rochester	224	228	452	1,426	31.7 %
St. Cloud	281	174	455	2,091	21.8 %
St. Paul	123	258	381	3,633	10.5 %
Staples	12	85	97	669	14.5 %
Suburban Hennepin	154	405	559	5,390	10.4 %
Thief River Falls	50	249	299	735	40.7 %
Wadena	30	125	155	738	21.0 %
Willmar	177	433	610	1,841	33.1 %
Winona	78	156	234	746	31.4 %
TOTAL	3,744	5,814	9,558	49,386	19.4 %

TABLE 4, SINGLE-SEX PROGRAMS, 1982-83

AVTI	# Programs		Total One-Sex Progs	Total Progs	Percent One- Sex Programs
	All- Female	All- Male			
Albert Lea	2	6	8	14	57.1 %
Alexandria	5	8	13	33	39.4 %
Anoka	7	2	9	36	25.0 %
Austin	1	3	4	16	25.0 %
Bemidji	3	3	6	13	46.2 %
Brainerd	5	2	7	23	30.4 %
Canby	3	5	8	13	61.5 %
Dakota County	2	10	12	35	34.3 %
Detroit Lakes	2	7	9	27	33.3 %
Duluth	2	2	4	30	13.3 %
East Grand Forks	4	3	7	17	41.2 %
Eveleth	3	3	6	12	50.0 %
Faribault	0	5	5	15	33.3 %
Granite Falls	3	1	4	12	33.3 %
Hibbing	2	0	2	15	13.3 %
Hutchinson	1	3	4	16	25.0 %
Jackson	1	9	10	19	52.6 %
Mankato	2	4	6	24	25.0 %
Minneapolis	0	0	0	31	0.0 %
Moorhead	6	6	12	24	50.0 %
916	3	3	6	55	10.9 %
Pine City	2	4	6	12	50.0 %
Pipestone	2	3	5	15	33.3 %
Red Wing	1	3	4	18	22.2 %
Rochester	5	5	10	25	40.0 %
St. Cloud	5	5	10	36	27.8 %
St. Paul	3	6	9	41	22.0 %
Staples	1	3	4	17	23.5 %
Suburban Hennepin	2	6	8	45	17.8 %
Thief River Falls	2	6	8	17	47.1 %
Wadena	1	4	5	16	31.3 %
Willmar	3	7	10	26	38.5 %
Winona	4	5	9	20	45.0 %
TOTAL	88	142	230	768	29.9 %

TABLE 5, ENROLLMENTS BY PROGRAM TYPE, 1982-83 - ALL STUDENTS

AVT I	Total Students		In Seg Trad'l Programs		In Seg Non-Trad'l Progs		In Integrated Programs	
	Number	%	Number	%	Number	%	Number	%
Albert Lea	587	100.0%	391	66.6%	1	0.2%	195	33.2%
Alexandria	1,862	100.0	1,320	70.9	64	3.4	478	25.7
Anoka	2,819	100.0	2,146	76.1	65	2.3	608	21.6
Austin	931	100.0	668	71.8	19	2.0	244	26.2
Bemidji	565	100.0	428	75.8	10	1.8	127	22.5
Brainerd	970	100.0	549	56.6	24	2.5	397	40.9
Canby	459	100.0	369	80.4	5	1.1	85	18.5
Dakota County	2,386	100.0	1,465	61.4	56	2.3	865	36.3
Detroit Lakes	966	100.0	720	74.5	36	3.7	210	21.7
Duluth	2,129	100.0	1,440	67.6	72	3.4	617	29.0
East Grand Forks	823	100.0	703	85.4	49	6.0	71	8.6
Eveleth	388	100.0	336	86.6	17	4.4	35	9.0
Faribault	525	100.0	390	74.3	23	4.4	112	21.3
Granite Falls	503	100.0	371	73.8	21	4.2	111	22.1
Hibbing	769	100.0	617	80.2	62	8.1	90	11.7
Hutchinson	1,025	100.0	777	75.8	47	4.6	201	19.6
Jackson	736	100.0	685	93.1	30	4.1	21	2.9
Mankato	1,994	100.0	1,067	53.5	34	1.7	893	44.8
Minneapolis	4,218	100.0	2,396	56.8	182	4.3	1,640	38.9
Moorhead	1,054	100.0	680	64.5	17	1.6	357	33.9
916	4,438	100.0	2,766	62.3	184	4.1	1,488	33.5
Pine City	505	100.0	420	83.2	12	2.4	73	14.5
Pipestone	688	100.0	499	72.5	15	2.2	174	25.3
Red Wing	777	100.0	578	74.4	34	4.4	165	21.2
Rochester	1,426	100.0	1,112	78.0	34	2.4	280	19.6
St. Cloud	2,091	100.0	1,207	57.7	40	1.9	844	40.4
St. Paul	3,633	100.0	2,483	68.3	151	4.2	999	27.5
Staples	669	100.0	454	67.9	23	3.4	192	28.7
Suburban Hennepin	5,390	100.0	3,644	67.6	239	4.4	1,507	28.0
Thief River Falls	735	100.0	615	83.7	12	1.6	108	14.7
Wadena	738	100.0	585	79.3	24	3.3	129	17.5
Willmar	1,841	100.0	1,225	66.5	26	1.4	590	32.0
Winona	746	100.0	653	87.5	24	3.2	69	9.2
TOTAL	49,386	100.0	33,759	68.4	1,652	3.3	13,975	28.3

TABLE 6, ENROLLMENTS BY PROGRAM TYPE, 1982-83 - FEMALE

AVTI	Total Female Students	Enrolled in Segregated Programs			Enrolled in Integrated Programs	Percent in Integrated Programs
		In "Male" Programs	In "Female" Programs	Total		
Albert Lea	190	1	90	91	99	52.1 %
Alexandria	797	34	509	543	254	31.9
Anoka	1,141	49	798	847	294	25.8
Austin	380	9	264	273	107	28.2
Bemidji	281	7	188	195	86	30.6
Brainerd	495	13	250	263	232	46.9
Canby	131	5	78	83	48	36.6
Dakota County	1,050	33	605	638	412	39.2
Detroit Lakes	315	26	190	216	99	31.4
Duluth	906	36	597	633	273	30.1
East Grand Forks	410	16	351	367	43	10.5
Eveleth	189	5	169	174	15	7.9
Faribault	192	20	91	111	81	42.2
Granite Falls	182	20	98	118	64	35.2
Hibbing	227	46	141	187	40	17.6
Hutchinson	414	40	259	299	115	27.8
Jackson	206	13	182	195	11	5.3
Mankato	869	27	367	394	475	54.7
Minneapolis	1,770	104	849	953	817	46.2
Moorhead	480	11	308	319	161	33.5
916	2,064	105	1,304	1,409	655	31.7
Pine City	140	9	75	84	56	40.0
Pipestone	199	5	129	134	65	32.7
Red Wing	182	31	88	119	63	34.6
Rochester	796	14	579	593	203	25.5
St. Cloud	852	32	359	391	461	54.1
St. Paul	1,459	75	912	987	472	32.4
Staples	110	23	12	35	75	68.2
Suburban Hennepin	1,893	176	1,093	1,269	624	33.0
Thief River Falls	231	8	166	174	57	24.7
Wadena	300	18	202	220	80	26.7
Willmar	943	17	612	629	314	33.3
Winona	283	11	240	251	32	11.3
TOTAL	20,077	1,039	12,155	13,194	6,883	34.3



TABLE 7, ENROLLMENTS BY PROGRAM TYPE, 1982-83 - MALE

AVT	Total Male Students	Enrolled in Segregated Programs			Enrolled in Integrated Programs	Percent In Integrated Programs
		In "Male" Programs	In "Female" Programs	Total		
Albert Lea	397	301	0	301	96	24.2
Alexandria	1,065	811	30	841	224	21.0
Anoka	1,678	1,348	16	1,364	314	18.7
Austin	551	404	10	414	137	24.9
Bemidji	284	240	3	243	41	14.4
Brainerd	475	299	11	310	165	34.7
Canby	328	291	0	291	37	11.3
Dakota County	1,336	860	23	883	453	33.9
Detroit Lakes	651	530	10	540	111	17.1
Duluth	1,223	843	36	879	344	28.1
East Grand Forks	413	352	33	385	28	6.8
Eveleth	199	167	12	179	20	10.1
Faribault	333	299	3	302	31	9.3
Granite Falls	321	273	1	274	47	14.6
Hibbing	542	476	16	492	50	9.2
Hutchinson	611	518	7	525	86	14.1
Jackson	530	503	17	520	10	1.9
Mankato	1,125	700	7	707	418	37.2
Minneapolis	2,448	1,547	78	1,625	823	33.6
Moorhead	574	372	6	378	196	34.1
916	2,374	1,462	79	1,541	833	35.1
Pine City	365	345	3	348	17	4.7
Pipestone	489	370	10	380	109	22.3
Red Wing	595	490	3	493	102	17.1
Rochester	630	533	20	553	77	12.2
St. Cloud	1,239	848	8	856	383	30.9
St. Paul	2,174	1,571	76	1,647	527	24.2
Staples	559	442	0	442	117	20.9
Suburban Hennepin	3,497	2,551	63	2,614	883	25.3
Thief River Falls	504	449	4	453	51	10.1
Wadena	438	383	6	389	49	11.2
Willmar	898	613	9	622	276	30.7
Winona	463	413	13	426	37	8.0
TOTAL	29,309	21,604	613	22,217	7,092	24.2

TABLE 8, ENROLLMENTS BY CURRICULUM AREA, 1982-83

AVTI	Agriculture			Distribution			Health			Home Economics		
	#F	#M	%F	#F	#M	%F	#F	#M	%F	#F	#M	%F
Albert Lea	--	--	--	51	29	63.6%	--	--	--	11	13	45.8%
Alexandria	0	70	0.0%	285	127	69.2	82	9	90.1%	41	1	97.6
Anoka	26	79	24.8	124	69	64.3	591	49	92.3	67	34	66.3
Austin	0	50	0.0	19	21	47.5	55	2	96.5	111	3	97.4
Bemidji	0	12	0.0	21	11	65.6	53	3	94.6	--	--	--
Brainerd	27	86	23.9	74	32	69.8	84	4	95.5	10	14	41.7
Canby	5	154	3.1	--	--	--	42	0	100.0	7	6	53.8
Dakota County	23	80	22.3	472	240	66.3	42	4	91.3	31	103	23.1
Detroit Lakes	9	61	12.9	51	39	56.7	68	5	93.2	40	43	48.2
Duluth	13	107	10.8	82	81	50.3	281	52	84.4	56	75	42.8
East Grand Forks	1	106	0.9	--	--	--	245	32	88.5	--	--	--
Eveleth	--	--	--	--	--	--	91	7	92.9	--	--	--
Faribault	0	46	0.0	22	14	61.1	69	8	89.6	2	17	10.5
Granite Falls	--	--	--	6	6	50.0	0	26	0.0	--	--	--
Hibbing	--	--	--	10	17	37.0	94	13	87.9	31	27	53.5
Hutchinson	5	77	6.1	51	34	60.0	--	--	--	59	3	95.2
Jackson	1	60	1.6	11	10	52.4	57	7	89.1	--	--	--
Mankato	3	120	2.4	102	77	57.0	182	6	96.8	83	85	49.4
Minneapolis	--	--	--	50	116	30.1	327	48	87.2	344	270	56.0
Moorhead	0	27	0.0	87	70	55.4	19	0	100.0	18	35	34.0
916	27	25	51.9	154	10	93.9	555	247	69.2	503	341	59.6
Pine City	3	34	8.1	0	4	0.0	--	--	--	15	0	100.0
Pipestone	1	40	2.4	79	81	49.4	--	--	--	19	135	12.3
Red Wing	1	16	5.9	--	--	--	48	3	94.1	13	127	9.3
Rochester	9	2	81.8	--	--	--	472	53	89.9	35	17	67.3
St. Cloud	1	51	1.9	139	128	52.1	119	14	89.5	74	42	63.8
St. Paul	--	--	--	9	35	20.5	403	50	89.0	280	130	68.3
Staples	8	60	11.8	--	--	--	--	--	--	11	9	55.0
Suburban Hennepin	99	158	38.5	107	75	58.8	306	47	86.7	142	159	47.2
Thief River Falls	0	36	0.0	18	17	51.4	25	3	89.3	91	1	98.9
Wadena	--	--	--	20	11	64.5	--	--	--	99	5	95.2
Willmar	47	222	17.5	75	37	67.0	212	4	98.2	193	25	88.5
Wynona	1	29	3.3	11	23	32.4	103	12	89.6	59	1	98.3
TOTAL	310	1,808	14.6	2,130	1,414	60.1	4,625	708	86.7	2,445	1,721	58.7

(TABLE 7, CONTINUED)

Office			Technical			Trade Industrial			Total			AVTI
#F	#M	%F	#F	#M	%F	#F	#M	%F	#F	#M	%F	
98	16	86.0%	29	43	40.3%	1	296	0.3%	190	397	32.4%	Albert Lea
318	108	74.7	3	138	2.1	68	612	10.0	797	1,065	42.8	Alexandria
251	1	99.6	59	358	14.2	23	1,088	2.1	1,141	1,678	40.5	Anoka County
134	17	88.7	27	140	16.2	34	318	9.7	380	551	40.8	Austin
200	30	87.0	--	--	--	7	228	3.0	281	284	49.7	Bemidji
288	63	82.1	--	--	--	12	276	4.2	495	475	51.0	Brainerd
61	13	82.4	6	13	31.6	10	142	6.6	131	328	28.5	Canby
398	96	80.6	11	89	11.0	73	724	9.2	1,050	1,336	44.0	Dakota County
99	4	96.1	9	35	20.5	39	464	7.7	315	651	32.6	Detroit Lakes
424	95	81.7	41	328	11.1	9	485	1.8	906	1,223	42.6	Duluth
149	29	83.7	--	--	--	15	246	5.8	410	413	49.8	East Grand Forks
78	5	94.0	9	41	18.0	11	146	7.0	189	199	48.7	Eveleth
81	12	87.1	9	43	17.3	9	193	4.5	192	333	36.6	Faribault
146	29	83.4	25	179	12.3	5	81	5.8	182	321	36.2	Granite Falls
46	9	83.6	5	69	6.8	41	407	9.2	227	542	29.5	Hibbing
254	29	89.8	28	216	11.5	17	252	6.3	414	611	40.4	Hutchinson
125	10	92.6	10	104	8.8	2	339	0.6	206	530	28.0	Jackson
409	195	67.7	27	251	9.7	63	391	13.9	869	1,125	43.6	Mankato
778	325	70.5	53	269	16.5	218	1,420	13.3	1,770	2,448	42.0	Minneapolis
329	77	81.0	2	74	2.6	25	291	7.9	480	574	45.5	Moorhead
673	280	70.6	72	382	15.9	80	1,089	6.8	2,064	2,374	46.5	916
116	68	63.0	--	--	--	6	259	2.3	140	365	27.7	Pine City
94	40	70.2	--	--	--	6	193	3.0	199	489	28.9	Pipestone
88	64	57.9	12	176	6.4	20	209	8.7	182	595	23.4	Red Wing
254	21	92.4	23	185	11.1	3	352	0.9	796	630	55.8	Rochester
434	118	78.6	39	333	10.5	46	553	7.7	852	1,239	40.8	St. Cloud
585	192	75.3	91	749	10.8	91	1,018	8.2	1,459	2,174	40.2	St. Paul
12	0	100.0	6	25	19.4	73	465	13.6	110	559	16.4	Staples
796	125	86.4	126	863	12.7	317	2,070	13.3	1,893	3,497	35.1	Suburban Hennepin
78	28	73.6	17	110	13.6	2	309	0.6	231	504	31.4	Thief River Falls
163	39	80.7	12	140	7.9	6	243	2.4	300	438	40.7	Wadena
361	46	88.7	18	158	10.2	37	406	8.4	943	898	51.2	Willmar
99	14	87.6	6	89	6.3	4	295	1.3	283	463	37.9	Winona
8,419	2,198	79.3	775	5,600	12.2	1,373	15,860	8.0	20,077	29,309	40.1	TOTAL

TABLE 9, CURRICULUM AREA BY PROGRAM TYPE: NUMBER OF PROGRAMS

<u>Curriculum Area</u>	<u>Number of Programs* Which Are:</u>			<u>Total</u>	<u>Percent Integrated</u>
	<u>Female</u>	<u>Male</u>	<u>Integrated</u>		
Agriculture	1	6	5	12	41.7 %
Distribution	6	6	12	24	50.0
Health	10	3	7	20	35.0
Home Economics	8	5	9	22	40.9
Business-Office	10	0	8	18	44.4
Technical	0	23	8	31	25.8
Trade - Industrial	0	45	11	56	19.6
TOTAL	35	88	60	183	33.0

TABLE 10, CURRICULUM AREA BY PROGRAM TYPE: NUMBER OF STUDENTS

<u>Curriculum Area</u>	<u># Students in Programs* Which Are:</u>			<u>Total</u>	<u>Percent Integrated</u>
	<u>Female</u>	<u>Male</u>	<u>Integrated</u>		
Agriculture	58	1,169	891	2,118	42.1
Distribution	947	230	2,367	3,544	66.8
Health	4,805	78	450	5,333	8.4
Home Economics	1,867	477	1,822	4,166	43.7
Busines - Office	5,621	0	4,996	10,617	47.1
Technical	0	5,744	631	6,375	9.9
Trade - Industrial	0	15,200	2,033	17,233	11.8
TOTAL	13,298	22,898	13,190	49,386	26.7

\* A "program" on these and the following tables, refers to a statewide aggregate. For example, Agricultural Production may be an integrated course at one or more ATVIs, but statewide total enrollments in all Agricultural Production courses are 97.8 percent male and therefore this is a "male" program at the state level.

TABLE 11, ENROLLMENTS BY COURSE BY CURRICULUM AREA, 1982-83.

AGRICULTURE

<u>OE Code</u>	<u>Course</u>	<u>Female</u>	<u>Male</u>	<u>Total</u>	<u>Percent Female</u>	<u>Percent Male</u>	<u>Course Type</u>
010100	Production Agriculture/Farm Mgmt	13	579	592	2.2	97.8	Male
010106	Dairy Herd Management	5	36	41	12.2	87.8	Male
010200	Agric. Supplies Sales & Service	72	283	355	20.3	79.7	Integrated
010220	Horse/Stable Care & Operations	47	11	58	81.0	19.0	Female
010300	Agric. Equipment Mechanics	2	359	361	0.6	99.4	Male
010302	Agric. Systems & Agric. Structures	0	34	34	0.0	100.0	Male
010500	Horticulture/Specialty Crops	54	65	119	45.4	54.6	Integrated
010502	Commer. Greenhouse Crop Production	18	8	26	69.2	30.8	Integrated
010504	Landscaping	76	230	306	24.8	75.2	Integrated
010600	Natural Resources Management	20	65	85	23.5	76.5	Integrated
010615	Land Construction Conservation	1	20	21	4.8	95.2	Male
010706	Forest Harvest/Logging Equip Maint.	2	118	120	1.7	98.3	Male
<b>TOTAL</b>		<b>310</b>	<b>1,808</b>	<b>2,118</b>	<b>14.6</b>	<b>85.4</b>	

Distribution

<u>OE Code</u>	<u>Course</u>	<u>Female</u>	<u>Male</u>	<u>Total</u>	<u>Percent Female</u>	<u>Percent Male</u>	<u>Course Type</u>
040100	Advertising Design/Layout/Sales	48	24	72	66.7	33.3	Integrated
040103	Visual Merch/Industrial Display	17	3	20	85.0	15.0	Female
040200	Fashion/Merchandising	451	24	475	94.9	5.1	Female
040400	Credit and Finance Management	66	44	110	60.0	40.0	Integrated
040500	Retail Floristry	83	7	90	92.2	7.8	Female
040600	Supermarket Merch/Mgmt/Distrib.	63	134	197	32.0	68.0	Integrated
040800	General Merchandising/Retail Sales	158	187	345	45.8	54.2	Integrated
040900	Hardware/Home Ctr Marketing & Mgmt	1	30	31	3.2	96.8	Male
040910	Lumberyard/Bldg Materials Market & Mgmt	0	21	21	0.0	100.0	Male
041000	Home Furnishing/Merchandising & Mgmt	62	2	64	96.9	3.1	Female
041050	Interior Design	222	70	292	76.0	24.0	Integrated
041060	Environmental Interior Space Design	11	1	12	91.7	8.3	Female
041100	Motel/Hotel Marketing & Management	34	34	68	50.0	50.0	Integrated
041200	Professional/Industrial/Wholesale Mktg	54	70	124	43.5	56.5	Integrated
041400	International Trade	36	19	55	65.5	34.5	Integrated
041700	Real Estate Sales	3	6	9	33.3	66.7	Integrated
041801	Sporting Goods Sales & Management	4	68	72	5.6	94.4	Male
041802	Travel Planning	270	16	286	94.4	5.6	Female
041805	Arena Management	0	23	23	0.0	100.0	Male
041900	Traffic/Transportation Management	9	40	49	18.4	81.6	Male
041910	Distribution Ctr Operations/Management	2	32	34	5.9	94.1	Male
042200	Sales Marketing & Management	514	514	1,028	50.0	50.0	Integrated
043200	Small Business Management	13	20	33	39.4	60.6	Integrated
044000	Materials/Inventory Management	9	25	34	26.5	73.5	Integrated
<b>TOTAL</b>		<b>2,130</b>	<b>1,414</b>	<b>3,544</b>	<b>60.1</b>	<b>39.9</b>	

TABLE 11, CONTINUED

HEALTH

<u>OE Code</u>	<u>Course</u>	<u>Female</u>	<u>Male</u>	<u>Total</u>	<u>Percent Female</u>	<u>Percent Male</u>	<u>Course Type</u>
070101	Dental Assistant Education	470	4	474	99.2 %	0.8 %	Female
070103	Dental Laboratory Technician Ed.	63	62	125	50.4	49.6	Integrated
070203	Medical Laboratory Technician Ed.	189	40	229	82.5	17.5	Female
070302	Practical Nurse Education	1,891	147	2,038	92.8	7.2	Female
070303	Nurse Assistant Education	899	149	1,046	85.8	14.2	Female
070305	Surgical Technician Education	120	29	149	80.5	19.5	Female
070401	Occupational Therapy Assistant Ed.	121	5	126	96.0	4.0	Female
070403	Prosthetics Technician Education	13	41	54	24.1	75.9	Integrated
070404	Orthotics Technician Education	7	31	38	18.4	81.6	Male
070430	Prosthetics Practitioner Education	2	18	20	10.0	90.0	Male
070440	Orthotics Practitioner Education	3	17	20	15.0	85.0	Male
070603	Optometric Assistant Education	14	26	40	35.0	65.0	Integrated
070801	Ward Clerk Education	329	4	333	98.8	1.2	Female
070901	Electroencephalograph Technician Ed.	18	5	23	78.3	21.7	Integrated
070903	Respiratory Therapy Technician Ed.	62	31	93	66.7	33.3	Integrated
070905	Central Services Technician Education	22	22	54	59.3	40.7	Integrated
070906	Human Services Education	121	20	141	85.8	14.2	Female
070925	Paramedic Education	13	48	61	21.3	78.7	Integrated
070943	Medical Assistant Education	208	2	210	99.0	1.0	Female
071300	Pharmacy Technician Education	50	7	57	87.7	12.3	Female
TOTAL		4,625	708	5,333	86.7	13.3	

HOME ECONOMICS

<u>OE Code</u>	<u>Course</u>	<u>Female</u>	<u>Male</u>	<u>Total</u>	<u>Percent Female</u>	<u>Percent Male</u>	<u>Course Type</u>
090201	Child Care, Guidance & Educ. Occup.	268	7	275	97.5 %	2.5 %	Female
090202	Fabrics, Fashions & Related Mgmt	15	0	15	100.0	0.0	Female
090208	Food Service Mgmt Training	63	131	194	32.5	67.5	Integrated
090209	Apparel Design & Production	209	51	260	80.4	19.6	Female
090210	Education Aide Program	76	3	79	96.2	3.8	Female
090215	Personal Living Skills	13	127	140	9.3	90.7	Male
090220	Interpreter Training Program	53	6	59	89.8	10.2	Female
091100	Building Care/Maintenance/Service	9	71	80	11.3	88.8	Male
091101	Housekeeping Aide Program	9	37	46	19.6	80.4	Male
092601	Barbering	41	26	67	61.2	38.8	Integrated
092602	Cosmetology	995	46	1,041	95.6	4.4	Female
092901	Baking/Bakery Assistant Program	68	55	123	55.3	44.7	Integrated
092902	Food Service Occupations	396	801	1,197	33.1	66.9	Integrated
092903	Heatcutting/Processing	2	177	179	1.1	98.9	Male
092905	Foodservice Management	10	30	40	25.0	75.0	Integrated
092906	Special Foods/Delicatessen/Catering	11	13	24	45.8	54.2	Integrated
092907	Kitchen/Foodservice Assistant Program	18	29	47	38.3	61.7	Integrated
092908	Oiletic Assistant Program	56	2	58	96.6	3.4	Female
092909	Oiletic Technician Program	77	3	80	96.3	3.8	Female
093302	Tailoring	17	5	22	77.3	22.7	Integrated
093402	Shoe Repair	4	28	32	12.5	87.5	Male
093500	Upholstery	35	73	108	32.4	67.6	Integrated
TOTAL		2,445	1,721	4,166	58.7	41.3	

TABLE 11, CONTINUED

Business - Office

<u>OE Code</u>	<u>Course</u>	<u>Female</u>	<u>Male</u>	<u>Total</u>	<u>Percent Female</u>	<u>Percent Male</u>	<u>Course Type</u>
140100	Accounting	1,699	752	2,451	69.3%	30.7%	Integrated
140102	Bookkeeping	100	27	127	78.7	21.3	Integrated
140120	Banking & Finance, General	165	42	207	79.7	20.3	Integrated
140121	Banking & Finance/Agricultural	24	56	80	30.0	70.0	Integrated
140200	Data Processing Occupations	824	912	1,736	47.5	52.5	Integrated
140201	Computer Operations	122	77	199	61.3	38.7	Integrated
140203	Computer Programming	31	48	79	39.2	60.8	Integrated
140294	Data Entry	204	17	221	92.3	7.7	Female
140307	Medical Records Management	66	1	67	98.5	1.5	Female
140704	Court Reporting	55	3	58	94.8	5.2	Female
140730	Gen.Secretary/Cler Occup w/shorthand	2,853	99	2,952	96.6	3.4	Female
140731	Gen.Secretary/Cler Occup w/o shorthand	1,095	81	1,176	93.1	6.9	Female
140742	Legal Secret.Occup w/o shorthand	43	0	43	100.0	0.0	Female
140743	Legal Secret.Occup w/shorthand	447	19	466	95.9	4.1	Female
140752	Medical Secret.Occup w/shorthand	82	0	82	100.0	0.0	Female
140753	Medical Secret.Occup w/o shorthand	523	1	524	99.8	0.2	Female
140800	Business Management	52	65	117	44.4	55.6	Integrated
140906	Word Processing Occupations	78	0	78	100.0	0.0	Female
<b>TOTAL</b>		<b>8,419</b>	<b>2,198</b>	<b>10,617</b>	<b>79.3</b>	<b>20.7</b>	

TECHNICAL

<u>OE Code</u>	<u>Course</u>	<u>Female</u>	<u>Male</u>	<u>Total</u>	<u>Female</u>	<u>Male</u>	<u>Course Type</u>
160103	Agricultural Drafting	113	538	651	17.4%	82.6%	Male
160106	Civil/Highway Technician Occupation	21	199	220	9.5	90.5	Male
160108	Electronics Technician Occup. Gen	224	2,364	2,588	8.7	91.3	Male
160109	Alternative Energy Specialist	3	14	17	17.6	82.4	Male
160110	Environmental Technician Occup.	22	61	83	26.5	73.5	Integrated
160111	Industrial Engineering Tech. Occup	6	60	66	9.1	90.9	Male
160112	Industrial Instrumentation Tech. Occup	7	79	86	8.1	91.9	Male
160113	Wind Energy Systems	2	79	81	2.5	97.5	Male
160130	Architectural Drafting Elec. Design	1	29	30	3.3	96.7	Male
160181	Radio and TV Repair	4	65	69	5.8	94.2	Male
160183	Industrial Electronic Equipment Repair	5	69	74	6.8	93.2	Male
160187	Communications Equipment Repair	0	38	38	0.0	100.0	Male
160188	Electro-Mechanical Technology	2	94	96	2.1	97.9	Male
160191	Telephone Central Station Repair	2	35	37	5.4	94.6	Male
160501	Chemical Laboratory Technician Occup.	43	40	83	51.8	48.2	Integrated
160510	Food Laboratory Testing & Management	32	29	61	52.5	47.5	Integrated
160811	Cable TV Equip. Install. & Maintenance	2	79	81	2.5	97.5	Male
161002	Air Traffic Control	13	52	65	20.0	80.0	Integrated
161203	Quality Control Tech. Occup	10	34	44	22.7	77.3	Integrated
161301	Mechanical Drafting	168	816	984	17.1	82.9	Male
161401	Metallurgical Tech/Pow Metallurgy	1	29	30	3.3	96.7	Male
161402	Nondestructive Testing	18	189	207	8.7	91.3	Male
161500	Energy Conservation/Use Technician Occup	1	22	23	4.3	95.7	Male
162002	Fluid Power Occupations	3	348	351	0.9	99.1	Male
162400	Optical Lens Production	19	44	63	30.2	69.8	Integrated
162700	Surveying Occupations	10	40	50	20.0	80.0	Integrated
165001	TV/Radio Broadcast	44	138	182	24.2	75.8	Integrated
165002	TV Production	12	56	68	17.6	82.4	Male
166000	Industrial Power System Tech. Occup	1	40	41	2.4	97.6	Male
166001	Automated Packaging Equip. Maintenance	0	53	53	0.0	100.0	Male
167000	Waste/Waste Treat. Technical Occup	2	38	40	5.0	95.0	Male
<b>TOTAL</b>		<b>775</b>	<b>5,600</b>	<b>6,375</b>	<b>12.2</b>	<b>97.8</b>	

TABLE 11, CONTINUED

## TRADE INDUSTRIAL

OE Code	Course	Female	Male	Total	Percent Female	Percent Male	Course Type
170100	Air Cond. Heating & Refrigeration	0	376	376	0.0 %	100.0 %	Male
170200	Major Appliance Repair	1	149	150	0.7	99.3	Male
170203	Vending Machine Repair	11	74	85	12.9	87.1	Male
170301	Auto Body Mechanics	6	923	929	0.6	99.4	Male
170302	Auto Mechanics	59	2,601	2,660	2.2	97.8	Male
170308	Parts Sales & Servicing	35	339	374	9.4	90.6	Male
170312	Service Station Mechanic	1	34	35	2.9	97.1	Male
170318	Motorcycle Mechanics	2	84	86	2.3	97.7	Male
170320	Auto Machining	0	54	54	0.0	100.0	Male
170403	Aviation Mechanics	9	451	460	2.0	98.0	Male
170600	Office Machine Repair and Service	6	83	89	6.7	93.4	Male
170700	Commercial Art	279	195	474	58.9	41.1	Integrated
170705	Technical Illustration	9	12	21	42.9	57.1	Integrated
170708	Electric Motor Repair	0	20	20	0.0	100.0	Male
170900	Commercial Photography	40	44	84	47.6	52.4	Integrated
171000	Construction Maintenance	1	60	61	1.6	98.4	Male
171001	Carpentry	51	1,015	1,066	4.8	95.2	Male
171002	Construction Electricity	22	689	711	3.1	96.9	Male
171003	Heavy Equipment Operations	2	112	114	1.8	98.2	Male
171004	Brick, Block & Stone Masonry	1	48	49	2.0	98.0	Male
171005	Painting & Decorating	11	77	88	12.5	87.5	Male
171006	Pipefitting	1	24	25	4.0	96.0	Male
171007	Plumbing	3	123	126	2.4	97.6	Male
171083	Heavy Equipment Maintenance	1	182	183	0.5	99.5	Male
171101	Building Utilities Mechanics	5	302	307	1.6	98.4	Male
171200	Truck/Diesel Mechanics	12	924	936	1.3	98.7	Male
171401	Electrical Maintenance Repair	1	41	42	2.4	97.6	Male
171402	Electrical Linework	0	106	106	0.0	100.0	Male
171900	Graphic Arts	427	727	1,154	37.0	63.0	Integrated
171907	Photographic Finishing	41	83	124	33.1	66.9	Integrated
172102	Clock & Watchmaking	5	16	21	23.8	76.2	Integrated
172302	Machine Shop Operations	58	1,903	1,961	3.0	97.0	Male
172303	Production Machinist Occupations	0	17	17	0.0	100.0	Male
172305	Sheet Metal Working/Fabrication	1	152	153	0.7	99.3	Male
172306	Welding Occupations	28	1,540	1,568	1.8	98.2	Male
172309	Metal Pattern & Model Making	3	39	42	7.1	92.9	Male
172700	Plastics/Lamination Occupations	1	63	64	1.6	98.4	Male
172802	Law Enforcement Training	59	389	448	13.2	86.8	Male
173100	Small Engine Mechanics	11	394	405	2.7	97.3	Male
173110	Marine Engine Mechanics	0	32	32	0.0	100.0	Male
173200	Stationary Engineering	2	78	80	2.5	97.5	Male
173601	Cabinetmaking	17	231	248	6.9	93.1	Male
173602	Wood/Furniture Finishing	8	17	25	32.0	68.0	Integrated
173700	Gunsmithing	2	69	71	2.8	97.2	Male
173801	String Instrument Repair	5	13	18	27.8	72.2	Integrated
173802	Band Instrument Repair	10	25	35	28.6	71.4	Integrated
175500	Millwright	0	37	37	0.0	100.0	Male
176000	Waterwell Drilling	1	18	19	5.3	94.7	Male
177050	Mobile Home Maintenance	2	57	59	3.4	96.6	Male
177600	Industrial Engines Mechanics	1	19	20	5.0	95.0	Male
177601	Industrial Maintenance	1	81	82	1.2	98.8	Male
178801	Media Production	32	187	219	14.6	85.4	Male
178803	Truck Driving	44	402	446	9.9	90.1	Male
179700	Sign Painting	24	14	38	63.2	36.8	Integrated
179800	Telephone Linework	4	118	122	3.3	96.7	Male
179960	Jewelry Goldsmithing/Silversmithing	18	21	39	46.2	53.8	Integrated
TOTAL		1,373	15,860	17,233	8.0	92.0	



TABLE 12, PROGRAM BUDGETS, 1982-83

ATVI	Total	Net Budget for Female Students	Net Budget for Male Students	Budget Percent Female	Students Percent Female
Albert Lea	\$ 1,343,584	\$ 450,617	\$ 892,967	33.5 %	32.4 %
Alexandria	3,931,768	1,521,155	2,410,613	38.7	42.8
Anoka	4,606,598	1,660,879	2,945,719	36.1	40.5
Austin	1,617,701	510,453	1,107,248	31.6	40.8
Bemidji	985,558	493,111	492,447	50.0	49.7
Brainerd	1,516,044	795,720	720,324	52.5	51.0
Canby	1,119,068	359,610	759,458	32.1	28.5
Dakota County	4,424,114	1,424,487	2,999,627	32.2	44.0
Detroit Lakes	1,648,511	509,299	1,139,212	30.9	32.6
Duluth	2,823,178	1,019,058	1,804,120	36.1	42.6
East Grand Forks	1,181,911	522,188	659,723	44.2	49.8
Eveleth	669,241	312,872	356,369	46.8	48.7
Faribault	1,135,553	460,322	675,231	40.5	36.6
Granite Falls	1,048,975	374,242	674,733	35.7	36.2
Hibbing	1,152,449	363,743	788,706	31.6	29.5
Hutchinson	1,531,085	463,677	1,067,408	30.3	40.4
Jackson	1,244,743	301,663	943,080	24.2	28.0
Mankato	2,893,592	1,167,021	1,726,571	40.3	43.6
Minneapolis	4,422,176	1,888,578	2,533,598	42.7	42.0
Moorhead	1,931,264	736,194	1,195,070	38.1	45.5
916	4,193,676	1,641,824	2,551,852	39.1	46.5
Pine City	782,797	176,597	606,200	22.6	27.7
Pipestone	1,016,939	298,906	718,033	29.4	28.9
Red Wing	1,209,238	289,858	919,380	24.0	23.4
Rochester	2,262,536	1,172,276	1,090,260	51.8	55.8
St. Cloud	3,421,912	1,321,504	2,100,408	38.6	40.8
St. Paul	5,057,497	1,578,070	3,479,427	31.2	40.2
Staples	2,264,022	334,032	1,929,990	14.8	16.4
Suburban Hennepin	8,606,722	2,514,218	6,092,504	29.2	35.1
Thief River Falls	1,238,608	369,666	868,942	29.8	31.4
Wadena	1,191,331	356,941	834,390	30.0	40.7
Willmar	3,471,409	1,383,281	2,088,128	39.8	51.2
Winona	1,234,265	415,987	818,278	33.7	37.9
TOTAL	\$ 77,178,067	\$ 27,188,049	\$ 49,990,018	35.2	40.7

TABLE 13, PROGRAM COST PER STUDENT, 1982-83

AVTI	Cost per Student			F/M Ratio
	Females	Males	Total	
Albert Lea	\$ 2,372	\$ 2,249	\$ 2,289	105.5
Alexandria	1,909	2,263	2,112	84.4
Anoka	1,456	1,755	1,634	83.0
Austin	1,343	2,010	1,738	66.8
Bemidji	1,755	1,734	1,744	101.2
Brainerd	1,608	1,516	1,563	106.1
Canby	2,745	2,315	2,438	118.6
Dakota County	1,357	2,245	1,854	60.4
Detroit Lakes	1,617	1,750	1,707	92.4
Duluth	1,125	1,475	1,326	76.3
East Grand Forks	1,274	1,597	1,436	79.8
Eveleth	1,655	1,791	1,725	92.4
Faribault	2,398	2,028	2,163	118.2
Granite Falls	2,056	2,102	2,085	97.8
Hibbing	1,602	1,455	1,499	110.1
Hutchinson	1,120	1,747	1,494	64.1
Jackson	1,464	1,779	1,691	82.3
Mankato	1,343	1,535	1,451	87.5
Minneapolis	1,067	1,035	1,048	103.1
Moorhead	1,534	2,082	1,832	73.7
916	795	1,075	945	74.0
Pine City	1,261	1,661	1,550	75.9
Pipestone	1,502	1,468	1,478	102.3
Red Wing	1,593	1,545	1,556	103.1
Rochester	1,473	1,731	1,587	85.1
St. Cloud	1,551	1,695	1,636	91.5
St. Paul	1,082	1,600	1,392	67.6
Staples	3,037	3,453	3,384	88.0
Suburban Hennepin	1,328	1,742	1,597	76.2
Thief River Falls	1,600	1,724	1,685	92.8
Wadena	1,190	1,905	1,614	62.5
Willmar	1,467	2,325	1,886	63.1
Winona	1,470	1,767	1,655	83.2
TOTAL	\$ 1,354	\$ 1,706	\$ 1,563	79.4

TABLE 14, POST-SECONDARY VOCATIONAL TEACHERS, 1982-83

AVTI	# Female Teachers (FTE)	# Male Teachers (FTE)	Total Teachers (FTE)	% Female Teachers
Albert Lea	7.0	31.2	38.2	18.3 %
Alexandria	25.2	85.0	110.2	22.9
Anoka	43.4	91.0	134.4	32.3
Austin	17.0	38.0	55.0	30.1
Bemidji	15.2	26.6	41.8	36.4
Brainerd	19.0	28.6	47.6	39.9
Canby	6.0	29.8	35.8	16.8
Dakota County	29.2	87.0	116.2	25.1
Detroit Lakes	11.4	46.5	57.9	19.7
Duluth	29.4	55.0	84.4	34.8
East Grand Forks	20.7	22.0	42.7	48.5
Eveleth	8.0	14.0	22.0	36.4
Faribault	9.0	29.0	38.0	23.7
Granite Falls	7.8	28.0	35.8	21.8
Hibbing	9.5	27.5	37.0	25.7
Hutchinson	14.2	32.3	46.5	30.5
Jackson	1.2	39.7	40.9	2.9
Mankato	26.1	66.0	92.1	28.3
Minneapolis	45.0	87.0	132.0	34.1
Moorhead	21.8	48.4	70.2	31.1
916	47.7	77.1	124.8	38.2
Pine City	4.6	21.0	25.6	18.0
Pipestone	8.0	33.5	41.5	19.3
Red Wing	8.6	32.5	41.1	20.9
Rochester	38.6	34.8	73.4	52.6
St. Cloud	27.0	69.6	96.6	28.0
St. Paul	47.7	116.9	164.6	29.0
Staples	3.6	38.0	41.6	8.7
Suburban Hennepin	47.4	153.9	201.3	23.5
Thief River Falls	12.8	30.6	43.4	29.5
Wadena	6.0	37.6	43.6	13.8
Willmar	36.0	86.6	122.6	29.4
Winona	15.0	27.0	42.0	35.7
TOTAL	669.1	1,671.7	2,340.8	28.6

TABLE 15, VOCATIONAL STAFF SALARIES & TENURE, 1982-83

AVTI	Average Annual Salary		Average Years Service	
	Females	Males	Females	Males
Albert Lea	\$ 21,917	\$ 28,203	7.9	10.2
Alexandria	21,722	23,388	6.9	11.1
Anoka	23,661	30,734	10.2	11.0
Austin	20,671	25,261	8.2	14.3
Bemidji	20,864	23,960	7.9	11.2
Brainerd	20,908	27,021	9.6	12.6
Canby	14,957	25,912	11.2	12.0
Dakota County	21,527	24,698	8.1	7.9
Detroit Lakes	23,576	24,032	9.8	11.1
Duluth	20,781	24,241	11.5	14.3
East Grand Forks	15,215	21,464	11.8	19.9
Eveleth	22,175	25,210	10.5	12.1
Faribault	24,913	26,851	13.0	12.6
Granite Falls	18,997	25,281	10.3	12.0
Hibbing	26,439	25,663	11.2	7.0
Hutchinson	21,680	26,668	15.2	14.9
Jackson	14,156	25,729	10.5	13.7
Mankato	22,334	27,757	7.6	9.3
Minneapolis	29,119	31,213	9.5	11.6
Moorhead	23,177	26,017	11.5	11.6
916	23,432	28,398	7.3	8.1
Pine City	19,499	23,396	12.2	10.9
Pipestone	19,747	25,084	9.9	12.3
Red Wing	20,843	24,564	8.9	8.3
Rochester	22,368	25,133	15.2	14.8
St. Cloud	24,254	27,946	11.7	12.7
St. Paul	25,230	29,205	12.8	13.5
Staples	21,992	27,321	7.8	9.6
Suburban Hennepin	24,406	31,048	7.6	9.7
Thief River Falls	21,612	25,662	10.1	15.5
Wadena	18,968	22,915	6.3	8.1
Willmar	22,584	29,065	9.9	15.8
Winona	20,776	25,098	7.8	11.1
TOTAL	22,789	27,113	10.0	11.6

# DEFINITIONS

All data in this report are from the Minnesota Department of Education, as reported by local school districts. The following definitions are used:

Headcount. The annual headcount conducted on October 1 includes every student enrolled in an AVTI on that date, and does not control for the amount of time a student is enrolled.

Program. For the purposes of this report, programs have been limited to courses of study related to an occupation such as Health Aide or Welding. Special needs programs and other administrative and support programs have not been included.

Curriculum Area. Curriculum areas are the seven program areas: Agriculture, Distribution, Health, Home Economics, Business-Office, Technical, and Trade-Industrial.

Segregated Programs. Programs are defined as segregated if over 80 percent of their enrollments are of one sex.

Integrated Programs. A program which is not segregated is integrated.

"Male" Programs. A segregated program is defined as a "male" program if more than 80 percent of the students are male.

"Female" Programs. A segregated program is defined as a "female" program if more than 80 percent of the students are female.

Traditional. A female student enrolled in a program in which over 80 percent of students are female, and a male student enrolled in a program in which over 80 percent of students are male, are traditional students.

Non-traditional. When a male or female student is enrolled in a program in which over 80 percent of students are of the other sex, that person is enrolled in a non-traditional program and is referred to as a non-traditional student.

Net Budget. Program budgets in this report give expenditures for an instructional program which includes all salaries, fringe benefits, supplies and materials, purchased services, and other expenses connected with the program, but does not include general administration and general support services in that AVTI. Program revenues have been subtracted.

"Male" Budget. A "male" budget is calculated by apportioning the net budget for a program in the same ratio as there are male students. For example, a net budget of \$100,000 for a program where 75 percent of students are male has a male budget of \$75,000.

"Female" Budget. A "female" budget is calculated by apportioning the net budget for a program according to the proportion of female students. In the example above, the female budget would be \$25,000.

Cost per Headcount. The cost per headcount is calculated by dividing the net budget for a program or an AVTI by the headcount for that program or AVTI. The cost per headcount for females is calculated by dividing the female budget by the female headcount for that program or AVTI, and the same method is used for calculating the male cost per headcount.

Average Yearly Salary. This salary is the total contracted salary based on full-time equivalence, and therefore controls for the number of weeks worked and for part-time employment.

Average Years of Service. Years of service refers to total years as a licensed teacher or administrator, not simply as an employee of a particular institution.